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ASIATIC SOCIETY OF BENGAL,

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Nos. I. TO V.—1859.

“It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science in different parts of *Asia*, will commit their observations to writing, and send them to the Asiatic Society at Calcutta. It will languish if such communications shall be long intermitted; and it will die away, if they shall entirely cease.”—

SIR WM. JONES.

CALCUTTA:

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1859.

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JOURNAL
OF THE
ASIATIC SOCIETY.

No. IV. 1859.

Descriptions of some new Burmese and Indian Helicidæ with remarks on some previously described species.—By W. THEOBALD, Junr.

H. Uter. n. s.

Testâ perforatâ, suborbiculari, carinatâ, tenui, lineis undatis et confluentibus subtilissime impressâ, sub epidermide deciduo evanescentibus, castaneâ, pallidissime rubicundulâ.

Anfract. $5\frac{1}{2}$ vix rapide, crescentibus; ultimo ad aperturam vix descendente.

Apertura lunari. Perist. recto—

Diam. 1.04. Alt. 0.64.* Habitat. prope Maulmein.

In general appearance this shell resembles a dextral *H. retrorsa*, but differs in being more tumid and also in size and sculpture. A single specimen was presented to me by W. S. Atkinson, Esq. who procured it with other known species near Maulmein.

H. Atkinsoni, n. s.

Testâ depressâ, infundibule-forme-umbilicata, lineis transversis rugose striatâ, lineisque spiralibus obscure leviter decussatâ obtuse carinatâ, sordide albidâ (forsan in meliore specimine corneâ) semi-translucente, suturâ impressa. Anfract. 5 convexiusculis, Apertura obliquâ. Perist. leviter incrassato, non reflexo.

Diam. 0.54 Alt. 0.20. Habitat prope Maulmein.

A single dead shell was found near Maulmein by Mr. Atkinson, after whom I have named it.

* Inches.

H. Tickelli, n. s.

Testâ orbiculatâ, depresso-conoideâ, acute carinatâ corneâ, apice polito, supra transverse rugose striatâ, subter glabrâ, semepolitâ—Anfract. $6\frac{1}{2}$ suturâ impressa, aperturâ coarctatâ. Perist. incrassato albedo, dentibus munito, hoc prope umbilicum, illo prope peripheriam duplicato, sive bipapilloso.

Diam. 0.36. Alt. 0.21. Habitat prope Maulmein, non raro.

This shell closely resembles *H. Capessens*, but differs from that shell in the two outer teeth being united to form one double one. I have much pleasure in naming it after the well known Indian ornithologist, whose hospitality I experienced at Maulmein.

H. Phayrei, n. s.

Testâ lenticulari, infundibuliforme-umbilicatâ, obtuse carinatâ lineis transversis flexuosis et confluentibus fortiter striatâ, anfract. 6, convexiusculis, sutura impressâ, aperturâ obliquâ, subquadratâ. Perist. tenui, reflexiusculo.

Diam. 0.68. Alt. 0.30. Habitat prope ripas Irawadi regno Birmanico—inter Ava et Prome.

This shell was procured by Mr. Oldham, whilst attached to the late embassy to Ava, and is named after the Envoy whose devotion to Natural History is so well known. It closely resembles *H. Rotoria*, but has a more elevated spire, coarser sculpture, a narrower umbilicus and is less sharply keeled.

H. Zoroaster, n. s.

Testâ umbilicata depresso-globosa, minute striata, cornea ad peripheriam rufro unifasciata; (interdum non cineta, pallide corneâ sive vitrea;) Anfract. 5. Aperturâ parum obliquâ, rotundato lunari, Perist. tenui, reflexiusculo.

Diam. 0.62 Alt. 0.34. Habitat prope ripas Irawadi regno Birmanico, inter Ava et Prome.

This shell unites the characters of *H. Scalpturita*, *H. similaris*, and *H. Bolus*. From the few specimens I have it is not quite clear if the banded and bandless shells do not represent distinct species, the bandless shells being rather larger than the rest.

H. Akowtongensis, n. s.

Testâ lenticulari, depressa acute carinatâ infundibuliforme umbilicatâ transverse striatâ fuesco-corneâ Anfract. $5\frac{1}{2}$ Perist. tenui, reflexiusculo.

Diam. 0.58. Alt. 0.25. Habitat ad Akowtong Provincia Pegu, prope ripas Irawadi.

A single dead shell, occurred with numbers of *H. rotatoria*, which it generally resembles, but from which it is distinguished by its sharper keel, more depressed spire, and simpler sculpture.

H. Poougee, n. s.

Testâ turbinate conoideâ, tenui, apice depressiusculo, anguste umbilicatâ, tumida, fusco-corneâ, Anfract. $6\frac{1}{2}$ convexis. Apertura rotunde lunari. Perist. recto, acuto.

Diam. 0.26. Alt. 0.20. Habitat prope Maulmein.

A thin brown helix, somewhat resembling the small *H. molecula* but with a more elevated spire, which, however, varies a little in different specimens.

In addition to these, two new helices of a peculiar type and a new *Sheptaxis* (*S. Sankeyi*. B.) have been received by Mr. Benson from near Maulmein, descriptions of which may soon be looked for. The shells forwarded to me by Capt. Haughton have enabled me to rectify an error in Mr. Benson's description of a somewhat singular origin, viz. that *Megalomastoma gravidum* is merely the adult shell of *Otopoma Blenuus*, which should now stand as *Otopoma Gravidum*. The only live specimen of *O. gravidum* procured by me at Maulmein, was furnished with a thin operculum, without doubt being abnormally formed after the loss of the original shelly one. This operculum was, I believe, sent to Mr. Benson and hence the mistake in question. The true operculum of *O. Gravidum* is the same as that described by Mr. Benson as appertaining to *O. Blennus*.

There appear to be two species of *Streptaxis* at Maulmein besides the new one just received by Mr. Benson. The shell which I take for *S. Petiti* is very variable in size and other particulars, which may account for some discrepancy in the description and my specimens. In the largest shells the description holds—"anfract. penultimus subangulatus," but in the smaller shells the keel is well pronounced. The extremes of this species (?) are Diam. max. 0.54 in the largest specimen and 0.39 in the smallest. The aperture too is more rounded than in the next species, in which it is very square.

The other species which I cannot identify is tolerably uniform in size being about 0.47 in extreme length. The penultimate whorl

is very sharply keeled and the spire much flatter than in the first species, and I may here remark that I cannot get over the impression that *H. Bombax* is nothing more than the young of the rounder of these two species of *Streptaxis*. (S. Petiti?) I regret not having paid attention to the respective distribution of these species, which I had previously confounded together. Together with the above shells I received a single specimen of *Bulimus citrinus* (var?) which I had not myself noticed so far North. It measures only 1.01.

In the May number of the *Annals of Natural History* for the present year Mr. Benson expresses his unhesitating conviction that my *H. Castor* is nothing more than the young of his *H. Oxytes*. I can only account for this by supposing that the specimen forwarded by me was smashed in transit and that Mr. Benson relies on some other source for his information. If a writer were unused to attach any weight to "*habitat*" and "*distribution*" in the discrimination of nearly allied species, he would have some reason perhaps to regard *H. Castor* as an extreme variety of *H. inversicolor*, wanting it is true the solidity, pronounced sculpture, colour and the closed umbilicus of that species, but not *absolutely* differing in any one character of importance, it is therefore out of the question associating it with the widely umbilicated *H. Oxytes*.

H. Pollux is of a similar type with *H. Castor*, and therefore cannot be allied to *H. Chevalieri*—which has, "*umbilicus latus*" or to any similar shell.

Mr. Benson also alludes to a shell which Mr. W. Blanford considered to be a young variety of *H. Cyclophlax*, but a shell which I received from Mr. W. Blanford, as such, is unquestionably distinct, though it is most probable that Mr. Blanford only sent home specimens of *H. Cyclophlax*, as otherwise Mr. Benson would hardly have failed I think to recognise a new species in the shell I shall now describe.

Helix Blanfordi, n. s.

Testâ umbilicatâ, depressâ, late, sive costulate striatâ, exilissime et minutissime flexuose granulatâ, ad peripheriam undatâ—ferrugiucorneâ, acute carinatâ, lineâ peripheriali tenui albidâ cinctâ, ad suturam anfractus ultimi notandâ—Anfract. $5\frac{1}{2}$, ultimo circa umbilicum vix perspectivum tumido. Apertura angulate lunari. Perist. acuto ad umbilicum parum dilato, crassiusculo.

Habitat prope Darjiling. Diam. 0.96. Alt. 0.35.

A young specimen of *H. Cyclophlax* measuring Diam. 0.96. At. 0.45.

The character on which I chiefly rely in separating the above shell from *H. Cyclophlax* is the almost microscopic sculpture it presents, so different from its allies *H. Cyclophlax* and *H. Oxytes*. These two last are indeed far more closely allied than either to the one above described. In size, colour, form and sculpture they do not differ more than is observable in local varieties of one species, the sole material point of difference seeming to me to consist in the flattening down of the mouth of *H. Cyclophlax*, which is not observable in *H. Oxytes*. The wide set striation of *H. Blaufordi* develops towards the periphery a slightly undulating outline calling to mind, though on a small scale, the somewhat similar feature in *H. Baiubridgei*.

Succinea Girnarica, n. s.

(*S. prodigium* *Ms. olim.*)

Testâ oblonge-ovatâ solidâ non politâ, tumida, fortiter striata rubro-flavescente magis minusve rutilo, aliquando pallescente; Anfract. $2\frac{1}{2}$ rapidissime crescentibus, ultimo capacissimo. Aperturâ rotundatâ. Perist. tenui. Diam. 1.07, 0.61. Alt. 0.42.

Habitat in cacuminibus et locis elevatioribus montis Girnar Peninsula Gujeratensi, dicta Katiwar.

Few specimens attain the dimensions here given. The largest shells are found on the peaks of the Eastern portion of the Girnar Hills and at a lower elevation of about 2000 feet, the shells are much smaller and paler coloured. They congregate in large numbers together in the crevices of the rocks to which they adhere so firmly, that it is no easy matter to dislodge them from their retreat. On the central peaks they are accompanied by the curious little *Camptonyx Theobaldi* B. though I did not observe that shell on the outer hills.

Calcutta, July 1st, 1859.

On the influence of Mountain-Attraction on the determination of the relative heights of Mount Everest, near Darjeeling, and the lofty peak lately discovered near Kashmir.

Read at the Monthly Meeting of the Asiatic Society, Sept. 1859.

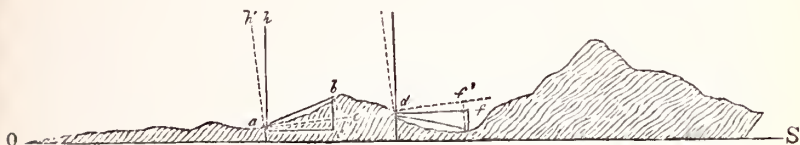
In the communication read at the July meeting of the Asiatic Society by Major Thuillier, the interesting fact was stated that a mountain has been found in the neighbourhood of Kashmir (about 36° North latitude and $76\frac{3}{4}^{\circ}$ East longitude), of which the height does not fall far short of Mount Everest (Lat. 28° , Long. 87°), the highest known mountain in the world, and which towers up to 29,002 feet or $5\frac{1}{2}$ miles above the level of the sea. The newly discovered peak is only 724 feet lower than this, and is 122 feet higher than Kunchinjunga, the highest known before the discovery of Mount Everest. And hopes are held out that before the survey of the hills in the neighbourhood is completed, some other mountain may yet be found in that western extremity of the range to rear its head as high even as the monarch of the east.

2. In the coming contest, then, for the sovereignty between the East and West of this stupendous range of mountains even a *small* circumstance may give the palm to one or the other. It is with this feeling that I lay the following statement before the Society.

In itself the precise determination of the height of a mountain is a matter of little importance. It is not to be compared, in a scientific point of view, with the importance of obtaining correct *horizontal* measures and the correct curvature of the arcs measured. But where mountains are contending for the pre-eminence of being the highest in the whole world, the question assumes special interest.

3. I take it for granted, that, as the effect of Mountain-Attraction on the levelling of the instruments of observation has not been taken account of in the Survey of the Plains, the same course has been followed in the Survey of the Mountains. It is to the effect which this disturbing cause must have upon the measurement of the heights in question, that I wish to call attention. My results will be only approximations: but I believe they are sufficient to show the tendency of things, and to add one more illustration to

others, I have elsewhere given, of the importance of means being taken to calculate the effects of this disturbing cause more completely.



4. The diagram above is an ideal vertical section of the plains and mountains, intended merely to illustrate the effect of Mountain-Attraction upon the determination of the heights.

OS is the sea-level, (lying on that spheroidal surface, of ellipticity $\frac{1}{300}$, of which the Ocean is supposed to form a part). To this level all heights are referred in the Survey: *a* and *b* are two stations of observation, *ah* the vertical at *a* perpendicular to the sea-level: the height of *b* above *a* is determined by the Survey, and this being done at each succeeding station the height of the highest peak is found by adding together the successive changes in height. In this diagram I have supposed all the stations of observation, leading from the sea up to the highest peak, to lie in the same vertical plane. This is not the case, some will lie on one side and some on the other. But taking this into account would make no difference in my results.

Draw *ac* parallel to the sea-level and *bc* perpendicular to it. Then *bc* is the true height of *b* above *a*. But the plumb-line will not hang in the line *ha*, but in another line *h'a*, owing to the Attraction of the Mountains: and therefore the spirit-level will make *ac'* (at right angles to *ah'*) the apparent level line at *a*, and not *ac*. Hence, if *bc'* be at right angles to *ac'*, *bc'* is the height of *b* above *a*, as brought out by the Survey. This is too small by *bc - bc'*.

Let the angle *h'ah* = *v*, and angle *bac* = *θ*. Then

$$\begin{aligned} bc - bc' &= ab \sin \theta - ab \sin (\theta - v) \\ &= ab \sin \theta - ab \sin \theta \cos v + ab \cos \theta \sin v \\ &= ab \cos \theta \text{ arc } v'', \text{ because } v \text{ is very small} \\ &= ac \times \text{arc } v'' \end{aligned}$$

Hence Mountain-attraction, if not corrected in the calculation, will have the effect of making b less high above a than it really is, by a space $= ac \times \text{arc } v''$.

5. The same will be the case where the next station (as e) is lower, instead of higher, than the station from which the observation is made (as d). The Survey makes the distance of e below $d = ef$, whereas it really is ef . Hence the effect of Mountain-Attraction is, as before, to make the successive heights above the sea-level too small.

6. I will now endeavour to approximate to the aggregate effect of this disturbing cause upon the heights of Mount Everest in the East and of the newly discovered Mountain in the West.

In communications to the Royal Society (see *Phil. Trans.* 1855 and 1859) I have shown that if through a point in the meridian of Cape Comorin and in latitude 33° a straight line be drawn in a direction E. S. E., that line may be regarded as an Axis of the Himalayas; such that the Mountain-Mass attracts places in the plains with a force varying inversely as the distance from that axis, at any rate for stations lying between the foot of the hills and a distance of about 1000 miles from the axis.

Also it is shown that at a distance of 222 miles from this axis the deflection of the plumb-line towards the north is $28''$, and therefore in a direction at right angles to the axis $= 28'' \sec. 22^\circ 30' = 30''$. A line about parallel with the axis at a distance of 156 miles marks the average commencement of the plains. From this line, then, the law of the inverse distance according to which the deflections vary, may be supposed to begin. Within this limit, that is, within the hill-region, the law will be different. At the line itself, that is, at the foot of the hills, the deflection northwards will be $=$

$$\frac{222}{156} 28'' = 40'', \text{ and the deflection towards the axis } = \frac{222}{156} 30'' = 43''.$$

7. Assuming that these data hold good for the foot of the hills below Darjeeling and for those below Kashmir, I proceed to find the accumulated effect of the errors in height at a series of stations, connecting the nearest point of the sea, viz. the Sandheads due South, with the foot of the Darjeeling Hills, running over a space of about 360 miles: and then the same at a series of stations, con-

necting the nearest point of the sea, viz. the mouths of the Indus, with the foot of the Kashmir Hills, running over a space of about 720 miles.

8. In the case, then, of Mount Everest in the Darjeeling Hills, the line of stations runs up due north over 360 miles to the foot of the hills, from which the distance due north to the axis = $156 \times \sec. 22^\circ 30' = 168$ miles. Suppose the stations along this line are at 12 miles distance from each other in succession (which is about the average used in the Survey). There will be 30 such stations, at the distances 180, 192, 516 miles from the axis of the Himmalayas, measured due north. Hence at these places the deflections of the plumb-line (which vary inversely as the distance from the axis) are

$$\frac{168}{180} 40'', \frac{168}{192} 40'', \dots \dots \dots \frac{168}{516} 40''.$$

Now by para. 4 the difference of level caused by a deflection $40'' = 12 \text{ miles} \times \text{arc } 40''$.

$$= 12 \times 3 \times 1760 \times \frac{40}{180 \times 60 \times 60} \pi = 12.3 \text{ feet.}$$

Hence, the aggregate change of level between the foot of the Darjeeling Hills, arising from this cause,

$$= 12.3 \left\{ \frac{14}{15} + \frac{14}{16} + \dots \dots \dots + \frac{14}{43} \right\} \text{ feet.}$$

$$= 172.2 \left\{ \frac{1}{15} + \frac{1}{16} + \dots \dots \dots + \frac{1}{43} \right\}$$

$$= 172.2 \times 1.098 = 189 \text{ feet.}$$

9. I will now find the change of level at the other extremity of the range. The range there slightly inclines more to the north. The axis of the Himmalayas may therefore be taken, for those parts, to be a line drawn, as before, though a point in latitude 33° of the meridian of Cape Comorin, but inclined 30° north of west. This axis runs near Skardo; and is, as before, about 156 miles from the foot of the hills; which are about 720 miles from the mouths

of the Indus, the nearest point of the sea. The line joining the sea with the foot of the hills passes over 720 miles (or 60 stations at 12 miles apart) and is about perpendicular to the axis above described, which is 156 miles beyond the foot of the hills.

Pursuing the same course as before, I find that the aggregate change of level of the foot of the Kashmir Hills above the sea level, owing to Mountain-Attraction not being taken into consideration,

$$\begin{aligned}
 &= 12.3 \times \frac{43''}{40''} \left\{ \frac{156}{168} + \frac{156}{180} + \dots + \frac{156}{876} \right\} \\
 &= 12.3 \times \frac{43}{40} \times 13 \left\{ \frac{1}{14} + \frac{1}{15} + \dots + \frac{1}{73} \right\}^* \\
 &= 171.9 \times 1.694 = 291.2 \text{ feet.}
 \end{aligned}$$

These calculations, then, if correct, show that the plains at the foot of the Darjeeling Hills are higher above the sea-level than the Survey makes them by 189 feet: and that the plains at the foot of the Kashmir Hills are higher above the sea-level than the Survey makes them by 291 feet. This gives 102 feet in favour of the plains near Kashmir above those near Darjeeling, arising from this cause.

10. I have yet to take into account the effect of Mountain-Attraction on the change of level along the line of stations connecting the plains with the mountains of which the altitude is under consideration. The law of deflection begins to alter from that of the inverse distance as soon as we enter the mass itself—just, as is well known, in the case of a sphere; a point outside it is attracted with a force varying inversely as the square of the distance from its centre, and therefore increasing as the point approaches: but as soon as the point enters the sphere it is attracted with a force varying directly as the distance from the centre, and therefore diminishing: the attraction at the surface of the sphere is greater than on any point outside or inside.

* I may observe that I have summed this and the previous harmonic series by using a table of cosines and secants, and adding up the cosines of the angles of which the secants are 14, 15, 16, &c.

So with the Himmalayan Mass. Its attraction on points outside the mass is shown (within certain limits) to be inversely as the distance from a given fixed line. But when we take a station within the mountain region this law must cease, and some other one come into operation. I have not the means of ascertaining what that law is. But, whatever it may be, it seems probable that it will be much the same as we pass in among the Kashmir Mountains, as it is in passing in among the Darjeeling Mountains. But the distance of the newly-discovered Mountain near Kashmir is about 270 miles from the foot of the hills, whereas Mount Everest is only about 100 miles. This circumstance must of itself give a great advantage to the Kashmir heights over those of the east end of the range.

11. In the above calculations I have considered the effect of the attraction of the Mountain Mass lying on the north of India. It is possible, that other causes may exist which either increase or moderate this effect. When any such cause is found its influence should be ascertained. One cause, besides the attraction of the north, lies in the deficiency of matter in the vast ocean lying on the south of India. This operates in two ways: (1) by affecting the plumb-line and producing effects similar to those I have been considering: and (2) by changing the sea-level at the Sandheads and also at the mouths of the Indus, that is, at the commencement of each of the two series of stations I have supposed to connect the sea with the Mountains in question. In this latter effect also the mountains give their aid.

The first of these causes will, as in the case of Mountain-attraction, make the height of Kashmir greater than the Survey makes it relatively to the east end of the range; while the effect of the second is doubtful. I have shown in a Paper read in December last before the Royal Society (see Proceedings, No. 34, p. 599), that the sea-level at the mouths of the Indus is very probably about 500 feet higher than at Cape Comorin owing to this cause. But how much higher it is at the Sandheads than at Cape Comorin, I did not in that calculation determine, as it was not required for the purposes of the paper. I should imagine that it would be very much the same as at the mouths of the Indus, as the Sandheads

are situated with reference to neighbouring seas and the vast ocean very similarly to them.

12. In conclusion, my own persuasion is, that when sufficient data are obtained to make the calculation complete, it will be found that Mountain-attraction, combined with deficiency of attraction of the Ocean, so far affects the levelling of the instruments of observation, as to cause the Survey to bring out the height of the newly-discovered Mountain near Kashmir too low by 150 or 200 feet relatively to Mount Everest. And consequently, that if a peak be found in those western Mountains, of which the height is about 200 feet less than that of Mount Everest according to the Survey measures, I believe myself, that there will be good ground at least for hesitating before we pronounce finally which of them is really the king of the whole range.

J. H. PRATT.

Calcutta, July 21st, 1859.

Notes on Káfiristán.—By Captain H. G. RAVERTY, 3rd Regt.
Bombay, N. I.

Prefatory Remarks.

Forty years have elapsed, since the Hon'ble Mountstuart Elphinstone, on returning from his embassy at the court of Shah Shújahul-Mulk, king of Afghánistán, in his valuable work on "Caubul," gave a description of that highly interesting and brave race of people, the Síáh-posh Káfirs, supposed to be descendants of the Báktrian Greeks.

Some twenty years subsequent to Mr. Elphinstone, Sir Alexander Burnes, in the account of his journey into Central Asia, gave a slight notice of this people, the meagreness of which drew forth the animadversions of the Edinburgh Reviewer, who, in the number for January 1835, thus notices the subject:—

"The remarks which our author makes on the Siah-posh Káfirs, or black-clad unbelievers, who inhabit the high mountains, which divide the basins of the Kábul and Badakshan rivers, are in like manner infelicitous as well as scanty. He tells us that he can add nothing to the intelligence respecting them collected by Mr. Elphinstone. Yet, imbibing the prejudices of his Mahomedan informants, he calls the Káfirs savages; which is certainly representing them under a new aspect; and this variance is the more remarkable, since Mr. Burnes, while at Peshawer, formed an acquaintance with Moolah Najeeb, a respectable man, who had travelled into the Kafir country at the instigation of Mr. Elphinstone, and who gave, on his return, a very interesting and favourable account of these brave and ingenuous mountaineers. 'The Káfirs,' says our author, 'live in a most barbarous manner, eating bears and monkeys;' a kind of food which does not appear to us to afford any incontrovertible implication of barbarism. The mention of monkeys suggests a well wooded country. We know that the black-coated unbelievers have wine in abundance, which they boil; and always carry a small vessel filled with it, suspended from their necks. The missionary Goez heard with pleasure of a fair complexioned, wine-drinking race of mountaineers, who were not Mahomedans; and hesitated not to conclude

that they were Christians ; and he alludes to their name of Siah-posh, when he gravely informs us, that they always go to church dressed in black. The language of these people, of which our author has collected a few words, belongs evidently to the Indian family. They are probably the fountain whence large streams of population have poured on the country below.* The local situation of this aboriginal tribe, and the independence they have so obstinately maintained, tend alike to increase our interest in them, and our wish that their secluded valleys, overhung with vineyards, were explored by some intelligent European traveller."

Sir Alexander Burnes in his work entitled, "Kabul, in 1836, '37 and '38," has given a somewhat longer account of this people ; yet, considering the excellent opportunities he must have had, it is far short of what might have been expected. At page 207 he says, "The account given by Mr. Elphinstone renders it unnecessary to repeat many of the details which I have received and which corroborate his statements."

It appears rather surprizing, that, during a residence of nearly three years at Kábul, within four or five days journey of the Káfir frontier—and on one occasion when still nearer, on visiting the Koh-i-Dáman and Kohistán ; and when he despatched Messrs. Lord and Leech to explore the passes of Hindú Kush,—he did not send some officer into Káfiristán. He entered Kábul from India on the 20th September, 1836 ; and it was only on the 15th November, 1837, after fourteen months had passed away, that Messrs. Wood and Lord were sent to Kundúz and Badakhshán.

Situated as he was at the time I speak of, with several intelligent officers at his disposal ; and not knowing how soon he might have to leave Afghánistán, or how quickly the British Indian Government might have to come into hostile contact with the Afgháns and other tribes inhabiting the countries in the vicinity of Kábul, every effort should have been made to gain all possible information concerning them, without awakening the suspicion of Dost Muhammad and his Amírs, by over eagerness. He should have deputed one of the officers associated with him, into the Káfir country, at that time a matter of no danger.

* They are the aboriginals of the country below probably ; but the Afgháns came from the far west, and are a wholly different race.

In a note at page 207 of the work to which I have before alluded, Sir Alexander Burnes remarks that, "Since the British entered Afghánistán, one of the Káfirs near Jellalabad, sent a congratulatory message at the arrival of so many Káfir brethren as ourselves." Here again a grand opportunity offered for sending an intelligent officer into Káfiristán, or at least that part of it under the authority of this Káfir chief. With what contempt, and John Bullish phlegm, and Indian listlessness, this party of friendly Káfirs was treated, will be found related below from the information of an eye-witness.

During a residence at Pes'háwer in 1849 and '50, I naturally, felt great curiosity respecting these interesting tribes, who, centuries ago, had resisted the hordes of Tímúr-i-Lang; baffled the legions of Akbar; and although surrounded on all sides by the fanatic, warlike, and ambitious enemies of their faith, have, up to the present day, preserved their independence, and even exact tribute from some of them; I was induced to send an intelligent man, a native of Kandahár, into the Káfir country to gain whatever information he could respecting this people, their country, and their manners and customs.

After an absence of nearly two years, by which time, I had given him up as lost,—the man and the money also which I had entrusted to him for his expenses,—he returned with an account of the Káfir-country and people, as also of Káshkár or Chitrál, Panjkorah, and other little known localities of Hindú Kush.

A Moulvi of Hasht-nagar, in the Pes'háwer district, whom I met with at Poonah, resided for several years at Dír, the chief town of Panjkorah, and close to the Káfir and Káshkár frontiers. He has supplied me with much of his own personal observation, which, together with other information gathered whilst at Pes'háwer, from various persons who had visited Káfiristán and the other petty states noticed in this paper, has enabled me to compare and check the different statements, the whole of which I have found generally to agree on all essential points, and to contain matter of some interest, though more meagre than I could have wished.

I had kept this paper by me, in the hope of returning to Pes'háwer, and of then adding to the information contained in it, or even

to have subjoined my own personal observations; for I had long cherished the idea of entering the Káfir country; and I would have effected it too, had I not been, during a number of years employment in the Panjáb, constantly kept at a distance from Pes'hawer—the chief city of our possessions in the Afghán country—which from my knowledge of the Pushto or Afghán language would have been my proper place.

The country lying between the 34th and 37th degrees of north latitude, and the parallels of 69° 30' and 74° 30' of east longitude, embracing the culminating ridges and slopes of the Hindú Kush—the Paropamisus and Indian Caucasus of the ancients—is, at the present day, divided into a number of petty independent states, inhabited by several highly interesting tribes, concerning whom our information is more scanty and imperfect than could be wished, and whom modern travellers have but briefly noticed.

These districts and valleys of the Kábul river and its tributary streams, have, from their rugged nature and strong situation, a natural tendency to resolve themselves into petty states, which have long been independent; and which, under their own chiefs, still continue to maintain their freedom. They are known at present under the names of Káfiristán, Chitrál, or Chitrár, or Káshkár, as it is variously termed, Panjkorah, Gilgitt, Suwát, Buner, Bájáwer, Kuner or Kámah, and Lamghán, all lying to the north of, and between the Kábul river (Kophenes) and the Sindhu or Indus. They require to be noticed in detail.

KÁFIRISTÁN.

The tract of country inhabited by that highly interesting race of people, known by the name of Si'áh-posh Káfirs, or "Black-clad unbelievers," is designated Káfiristán—a compound word derived from the Arabic كافر (*ká-fir*) an infidel or unbeliever, and the Persian participle ستان (*istán*) a place, a station. It is bounded on the north by the Uzbek states of Kundúz, and Badakhshán; south by the cantons or districts of Lamghán or Laghmán and Kámah, situated on the northern bank of the Kábul river; east by Chitrál

or Káshkár, Panjkorah, and Bájáwer; and west by the mountains on the left bank of the Panjsher river, the eastern boundary of the valley of that name, the Koh-dáman, and the Kohistán or Highlands of Kábul. Within its boundaries are included the ridges and steep spurs of the Hindú Kush, enclosing narrow and fertile valleys descending in terraces towards the Kábul river and the Indus, in a north-east and south-west direction.

The valleys are watered by numerous streams somewhat like the ramifications and reticulations of a leaf, which running east and west, at length fall into the five considerable rivers intersecting the country. These take their rise on the southern slopes of the Hindú Kush, and flow towards the south until they empty themselves into the river of Kábul, the Kophenes of the Greeks, which running east, disembogues into the *Aba-sínd* or "Father of Rivers"—as the Indus or Attak* is termed in the Afgháu language—a little above the town bearing the latter name.

Other less important streams, rising in the northern slope of the mountains, run towards the north, until they fall into the Oxus and its tributaries.

The largest of the five principal rivers above alluded to, the most easterly, and separating the upper part of Káfiristán from Chitrál or Káshkár, rises on the southern slope of the Belút Tágh or Cloudy Mountains (in the Túrki language); but known by the Afgháns, and other tribes inhabiting these regions, by the Persian name of Belúristán or the "Region of Crystal"† from the quantities of that substance found there, at the *Tálab-i-níl*, or "Blue Lake,"‡ lying further to the south than that of Sir-i-kol§ visited by Wood,

* *اٹک* *Attak*, in Hindí signifies "a bar, obstruction, or obstacle;" and, as may be implied from its meaning, is a name given to the Indus, the river which Hindús, by their religion, are forbidden to cross.

† See KHUSHHÁL KHÁN'S poem in the account of Suwát.

‡ See notice of KÁSHKÁR; and MOORCROFT'S TRAVELS.

§ "An individual who had seen the region between Wakhan and Kashmir informed me that the Kuir river had its principal source in a lake resembling that in which the Oxus has its rise; and that the whole of this country, comprehending the districts of Gílgitt, Gunjit and Chitrál, is a series of mountain defiles that act as water-courses to drain Pámir." 'JOURNEY TO THE OXUS.'

which is considered by him to be the source of the Oxus. After pursuing a south-westerly course, through Káfristán, Chitrál, Lamghán, and the Kuner or Kámah district, for about three hundred and eighty miles, it joins the Kábul river ten miles below Jelálábád, in Lat. $34^{\circ} 24'$ and Long. $70^{\circ} 35'$.

At the junction with the latter stream, and for about thirty miles further up, it is known as the Kámah river, from the name of the district which it waters, situated immediately to the north and east of Jelálábád. Some distance further up, the stream is called the Kuner, from the small town and district on its eastern bank; and a short distance still more to the north, it is at times designated the Núrgil, from the valley and district so called, lying on its western bank, and from which, as well as from districts still further to the north, several smaller tributaries fall into it. As we advance towards its source, it is known as the Chegán-sará'e, from the town of that name on its western bank. Here it receives a minor stream called the Pích, from the north-east, which rising in the Hindú Kush, flows through a valley bearing the same name. By proceeding along its banks Badakhshán may be reached; but the road is difficult and lies through the defiles of the mountains. From Chegán-sará'e to its source in Belít Tágh or Belúristán, to the north-east, it is known as the river of Káshkár or Chitrál.*

On the melting of the snows in the spring and summer months, it can only be crossed by means of rafts, formed by tying together the inflated skins of beasts and laying straw on the top of them; for it then becomes much swollen, and increases very considerably in volume, and rolls along over its rocky bed with great impetuosity. From this it is evident, that it must have more than one considerable influx in its upward course. During the winter months, the stream, although still rapid, is of no great volume. It is the Choes of Arrian and the Choaspes of Strabo.

The next river in succession towards the west is the Kow, which also rises on the southern slope of the Hindú Kush, but much lower down towards the south. After a course of about seventy miles,

* All these names have confused some authors, and have caused them to make several rivers of it. Elphinstone and Moorcroft call it by the general name of Kameh or Kama.

it joins the Shúnah, (erroneously styled the Alingár by some travelers) at Tírgarí in the district of Lamghán, where it receives the Najíl or Alisháng river, and then takes the name of Alingár. After flowing for eight or ten miles further, through the above-named district, it joins the Kábul river some miles west of Jelálábád, at Kergah, a mile to the east of Manderáwer, and about twenty-five miles from the embouchure of the Kámah.

The next river to the west is the Najíl or Alisháng. It likewise takes its rise on the southern slope of the Indian Caucasus, but somewhat further to the south than the preceding, in the district of Najíl, situated to the north of the *darah* or valley of Míl;* and after running for about sixty miles through the Síáh-posh Káfir country, almost parallel with, and but a few miles distant from the Kow, joins the latter river, after which the united stream is known as the Alingár, as before mentioned.

West of the Alingár is the river of Tagáb or Tagáo, which also taking its rise in the Hindú Kush, flows almost due south for about ninety miles through Káfiristán. A few miles from its mouth, after receiving the united streams of Ghorband, Nijrow, Panjsher, and their tributaries, watering the valleys bearing those names, and included in the Kohistáu of Kábul, it falls into the river of Kábul about forty miles east of that city.

Numerous small streams, running east and west, and west and east, fall into the whole of these rivers and greatly increase their volume. In fact, every valley, with scarcely an exception, has a rivulet flowing through it, on each side of which is deposited the rich alluvion washed from the mountains by the heavy rains of the winter and spring months, that constitutes the chief and most fertile portion of the land, being well adapted to, and most easily brought under, cultivation. This explanation is applicable to nearly all the alpine districts of the Hindú Kush, and which, though well-watered, contain, comparatively, but little level land capable of tillage. The rivers flow over rocky beds, are rapid, and generally clear; and the five larger ones, when swollen from the melting of the snows in the summer months, increase considerably in rapidity and violence—in

* Báber mentions that, "the part of Káfiristán nearest to Alishang is called *Miel*, and the river of Alishang comes down from *Miel*." MEMOIRS, p. 112.

many places falling over precipices and forming cascades—and attain a breadth of from one hundred to one hundred and fifty yards.

Another considerable river rises in the northern part of Káfiristán on the northern slope of the Hindú Kush, at a place designated by the Sí'áh-posh, *Kandah-i-níl*—*kandah* in Persiau signifying, a dam or dyke.

It flows in a direction almost due north, to fifteen or twenty miles beyond Jerm iu Badakhshán; after which, being joined by the Wardoj river (according to Wood), it runs nearly due west, and unites with the Panj or upper branch of the Oxus, whose source is lake Sir-i-kol iu Pámir, 15,600 feet above the level of the sea, the highest table-land in Asia, and probably in the world. These united streams (according to the author just quoted) fall into the Oxus at Killæ Cháp. He also calls the first mentioned river by the name of Kokcha; but the Káfirs, in whose country it rises, and the people towards Jerm, consider it the source of the Æmán or Oxus.* In fact they know it by no other name, and what Lient. Wood calls the main branch of that river, they designate the Panj.

Besides the large valleys watered by the river rising at *Kandah-i-Níl*, there are several others that open into them and wind amongst the hills in an oblique direction towards Káfiristán. The whole of them send down numerous small streams to the larger rivers. Along the banks of these the Káfirs occasionally make inroads into Badakhshán.†

* “Aparená or the west, is the Litodá lake from which issues the Aparagan'dicá or Western Gan'dicá, called also Chacshu in the Puránás, Oxus by the Greeks, and Cocshu by the natives. This lake which is the source of the Oxus, is noticed in some maps: by the natives it is called *cul* (kol) or the lake; and by Persian authors Divsarán; Deva-sara in Sanskrit, signifies the lake of the gods, or the divine lake. According to them it is near the mountains of Andemas from the Sanskrit And'ha Tamasa, both words implying darkness, (in the Túrki language Belút Tágh, previously referred to), but being joined together, they imply it in a superlative degree; and it is the name of one of the divisions of hell. On the summit is the *Belur*, or dark country of the maps. WILFORD ON THE SACRED ISLES OF THE WEST. ASIATIC RESEARCHES; Vol. VIII. Pp. 330.”

† “*Robat*, a deserted village seven miles down the valley. It stands at the mouth of a little stream on the right bank of the Kokcha, by the valley of which

The Wardoj, which disembogues into the Kokcha, as already mentioned, rises on the northern slope of the mountains towards Káshkár or Chitrál, through the valley of which, a winding pass, occupying a journey of three days, brings one to the borders of that state, and another pass to the west leads into Káfiristán; but these routes are only practicable in the summer months. Another small stream joins the Panj at Ishtarak in Badakhshán; and by following up the course for three days, the borders of Káshkár are reached.

The regions in which these rivers rise, and through which those south of the Hindú Kush flow, have, from the days of Herodotus downwards, been said to abound in gold, a statement that is fully substantiated: for in the present day, quantities of the precious metal continue to be found in the beds of the rivers. I shall offer some further remarks on this subject in another place.

The physical aspect of Káfiristán is similar to that of the districts further east; and consists of a succession of large and narrow valleys, through which the principal rivers flow, bounded by ridges of lofty mountains on each side, which are generally covered with snow. The large valleys are again crossed in a transverse direction by numerous smaller ones opening into them. These are, in the same manner, again crossed by others still smaller and almost innumerable; and through the whole of these, small streams run and increase the volume of the larger rivers.

There is much diversity of temperature and variability of climate, caused by the occasional great difference of elevation—some parts of the country being considerably depressed. In the more elevated tracts, the summer heat is never oppressive, and in the winter months the snow lies on the ground for many weeks together. The more depressed valleys again are well-sheltered from the cutting blasts of winter; and, although surrounded on all sides by beetling mountains capped with eternal snows, the heat in the months of June, July, and August, is considerable. In some of the most secluded places, it is rather oppressive; and is sufficient to bring to perfection great quantities of excellent grapes, and other fruits, constituting a large portion of the people's food. From the grapes a good the Káfirs usually make their inroad into Badakhshán." "WOOD: JOURNEY TO THE OXUS."

deal of excellent wine is made, for which indeed the Káfirs and their country are somewhat notorious in this part of Asia.

The soil of the valleys is, generally, a rich dark-red mould, containing a large portion of clay, mixed with sand and stones towards the skirt of the hills; whilst that of the narrow and terrace-like strips of land at the sides of the mountains is mixed with sand in a greater proportion.

Rain falls in copious showers, but never for any lengthened period. It occurs chiefly during the spring months, and towards the end of August and September; although occasional showers fall, as in other temperate climates, throughout the year. In the winter violent snow storms are of frequent occurrence, which block up the passes between the hills, and cut off all communication between the different valleys, often for weeks together.

The climate, on the whole, is exceedingly healthy; and but little sickness is known. The principal diseases the people are subject to, appear to be, as in all alpine countries, ophthalmia and fevers. That scourge of the human race, the small-pox, has never yet made its appearance among them, which may be attributed, in great measure, to their slight intercourse with foreigners.

The roads or footpaths are narrow and difficult in the extreme, and every here and there intersected by frightful ravines, yawning chasms, and foaming torrents. These, the Káfirs cross by means of rope bridges—now leading along the brink of tremendous precipices and frowning cliffs—now winding through deep and narrow hollows, dark almost at mid-day. Travellers also incur not a little danger from fragments of rock and stones, that—either loosened by the rain or wind, or disturbed by wild animals and the numerous flocks of goats that crop the herbage on the higher hills and beetling crags, at the base of which they tread their way—every now and then come rolling down with a fearful crash reverberated on all sides.

If the road should be a frequented one, these primitive bridges are made by connecting together four or five stout and strong ropes, made of goats'-hair, by slighter ones at about six or eight inches distance from each other, laid transversely just like the shrouds of a ship's masts with the ratlines across. These are fastened to the trunks of trees on either side, and stretched as tight as possible.

Should there be no trees sufficiently near the spot, the ropes are either attached to strong stakes driven into the ground, or made fast to the rocks. On each side of this suspension bridge there is another rope by which a person crossing may steady himself. Some people crawl along on their hands and knees, and others, less timorous, walk across; still the depth of the yawning abyss beneath, accompanied at times by the deafening sound of the foaming torrent that seems to shake the very rocks, renders this mode of crossing, even to those accustomed to it, fearful in the extreme.

Other bridges, when the narrowness of the chasms will permit, and trees of sufficient length are available, are formed by placing three, four, or more logs side by side. The Káfirs cross the smaller chasms and mountain-torrents of no great breadth, by means of leaping poles. In the use of these they are exceedingly expert, and being a particularly active race, can climb the steepest hills.

Horses, mules, asses, and camels, are unknown in the Káfir country; and burdens are either carried by bullocks or on men's backs, chiefly by a tribe of people designated Báris, mentioned hereafter; although the Káfirs themselves do not disdain, upon occasion, to carry a load.

They possess numerous herds of cows yielding great quantities of *ghí* or clarified butter, a staple article of consumption, and of a superior description. The goats are most numerous, and are of a particularly fine breed, said to be much superior to those of the neighbouring countries; but sheep are few in proportion. They also rear an infinite number of fowls. Dogs and cats are common.

For the purpose of milking the cows and goats, the females go into the pastures, where they graze. When a woman wishes to milk her cows, she places the milk pail before her, and calls out the name of the cow she wishes to operate upon first; for all the animals have their peculiar names. On this the cow comes lowing towards her, and stands over the vessel. Having milked her, the woman sends her away and calls out the name of another cow, and so on until the whole have given up their milk, the greater part of which is made into butter, cheese, and curds.

The chief vegetable productions of Káfiristán consist of wheat, which is cultivated in a greater proportion than any other grain,

barley, and *arzuin* or millet, together with small quantities of rice in the low grounds in the southern parts of the country: for only those who have been much among Mubammadaus, and have seen it cooked, know how to boil it. A few varieties of vegetables and greens are grown wherever the land is suitable. They use the spring-water for drinking purposes, having no wells; and the fields are entirely dependent on rain, or are irrigated artificially from the innumerable small streams intersecting the country, wherever the situation of the ground enables them to distribute the water by means of small cuts or channels. The quantity of land conveniently situated for this purpose is by no means great; and it is necessary to cultivate all the smallest available spots on the sides of mountains, and often on the terrace-like ridges. Many of the latter are artificial, and formed after the employment of great labour, time, and perseverance; indeed, no favourable bit of land, be it ever so small, is neglected. This somewhat unfavourable situation of the tillable land, and the often barren nature of the soil in many parts of the country, compels the people to depend, in a great measure, on the produce of their herds and flocks, and on their orchards and fruit-gardens, for subsistence.

The slopes and ravines of the Hindú Kush, as well as many of the lower ranges of hills, are generally covered with primeval forests, containing trees of immense size, the growth of ages, especially the different kinds of pine and fir, such as the *deodár*, *chilghozah*, and five or six other sorts; the oak; hazel; alder; *zaitúu* (wild olive); *chinár* (plane); horse-chestnut; *dí'ár*; *sbísham* (*Sisu Dalbergia*); *karkarah* (species of fir); *tút* (mulberry); *anandar*; *joz* (walnut); *rút*; *saujit* (jujube tree, or *Eleagnus orientalis*?); together with several others. In the year 1849, when the Bombay troops were at Pesháwer, the late Surgeon J. P. Malcolmson collected some twenty-five or thirty specimens of timber from the vicinity, amongst which were many hard, strong, and useful kinds of wood. Many of the specimens of fir and pine were dark and heavy from the quantity of turpentine they contained, and were just the same in appearance as the Riga deals we see in England.

The dense forests of pine and other trees supply the people of these Alpine regions with an inexhaustible stock of fuel, as well as

wood for building purposes. Pine slips are generally used instead of lamps and torches.

The fruits are produced in great quantities and of fine flavour ; consisting of grapes of several kinds, pears, apples, apricots, plums of two or three species, peaches, nectarines, figs, wild walnuts, quiuces, pomegranates and mulberries. The whole of these are chiefly grown in the sheltered valleys to the south. There are a few others growing wild, such as the amlúk (a species of *Diospyros*), pistah (*Pistacia Lentiscus*), the seed of the chilghozah (species of pine), etc.

Numerous wild flowers, indigenous to these regions, grow in the hills ; and in the valleys, the *gul i-nargis* or narcissus, is to be found in infinite numbers.

Minerals and Metals.

With regard to the mineral productions of these parts, it will be necessary to notice the regions of Hindú Kush generally.

The more elevated regions of Central Asia have ever been famous for the prodigious abundance of the precious metals, whether in ancient or in modern times—under the rule of the Medes and Persians, the Arabians, or the Moghals—as corroborated by every writer from Herodotus downwards ; and the proofs of these facts, are so well and so fully authenticated, as to leave no room for any reasonable doubts on the matter.*

As far as we know hitherto, mountainous regions appear to be exclusively productive of gold and silver, from whence a great proportion is washed down by the violence of the periodical rains and melting of the snows, and deposited in the sandy beds of rivers.

The more western parts of the Asiatic continent appear to be but sparingly possessed of these metals, which are the more abundant towards the east. The regions I here more particularly refer to, comprise the ranges of the Hindú Kush ; the table-land of Pámir, separating Badakhshán from China and Káshmir—the probable seat of the old Medo-Persian race—and enclosing within its limits Káfiristán ; Upper and Lower Káshkár ; the petty states north of, and in, the upper valley of the Oxus or Panj ; together with Gilgitt ;

* HEEREN'S ASIATIC NATIONS. Vol. I. pp. 26.

Gundút;* Hunzí; Nagyr; the Dárdú country; and other small independent states on the western bank of the upper Indus, from which several rivers flow in a south and easterly direction, and subsequently fall into the latter river. The streams, to which my remarks are principally confined, are the rivers of Káfiristán and Chitrál or Káshkár, the Panjkorah or Lundaey with its several tributaries, and the Gilgitt and its feeders. All these yielded, during the dynasty of the Persians, a great quantity of gold, which was collected by their tributaries, the people of northern India.†

Herodotus states, that the gold was not only collected from the sands of the rivers, but was also obtained from mines; and, that the Indians themselves paid to the Great King their tribute of thirty-six talents in that precious metal.‡

In these regions were placed the fabulous griffins who watched the gold; and the gold-making ants of the size of foxes—some of which, according to Ctesias, were to be seen in the menageries of the Persian kings—that rendered the collection of the metal a matter of great danger to the Indians. These little animals are also mentioned in the Sanskrit epic poem of the “Mahábhárata,” or “The Great War;” and instead of ants might, and indeed in all likelihood, have reference to a large species of marmot existing in these regions: for these, when making their burrows, throw out the fresh earth, amongst which quantities of gold were found.§

* “There is a district N. E. of Chitrál which is called Gunjoot from the gold which is found in it.” BURNES’ CABOOL. This is the district called Gunjit by WOOD in his “JOURNEY TO THE OXUS.”

† HERODOTUS: THALIA III. 102-105.

‡ IBID: THALIA III. 106.

§ “The story has an Indian foundation, although it has been embellished by Grecian fancy, and its native form occurs in the Mahábhárata. “On the solemnity of the inauguration of Yudhishtira as universal emperor, his feudatories, princes, and people, bring him the natural or artificial products of their several countries, as complimentary offerings. Various mountain-tribes bring large lumps of the native gold denominated *Pip-líka*, because it is excavated by *Pip-líkas*,” that is by large ants, such being the meaning of the term; the Hindús apparently imagining that the ants cleared away the sand or soil, and left the ore exposed, and this simple notion was wrought into the extravagant marvels of Ctesias and Herodotus.” WILSON; ARIANA ANTIQUA; pp. 136.

The accounts of the ancients are further confirmed by the traditions of the people of these countries; and from the fact of the precious metal being found washed down by the rivers and minor streams in Káfiristán, Panjkorah, Bájáwer, Suwát, Gilgitt, and other valleys, west of the upper branch of the Indus, at the present day.

Gold, at present, appears to be chiefly obtained from the sands of the beds of rivers alone. Numbers of gold-washers are employed in the upper branches of the Kunir or Cheghán-sará'e river, at Peshút and other places; in the bed of the Chitrál or Káshkár, and its tributaries also; in the river of Kábul near Jelálábád; and in Káfiristán.*

In Bájáwar, Panjkorah, and Suwát, quantities of gold-dust are collected; indeed, much more than the Afgháns of these parts care to, or readily will, confess. They adopt another mode than washing the sands of the rivers, by half burying sheep-skins in the beds of the streams, allowing the wool free play, and in this the particles of gold becomes entangled. I am told by the Afgháns of these parts, that the gold thus obtained, is of a much paler yellow than that seen in the Panjáb and in India, being almost straw colour.

In the Gilgitt valley, and that of Hunzí, and Nágyr, which open into it from the north-east, and also in Little Thibet,† the ore is principally obtained by washing,‡

* "The rivers flowing through Káfiristán undoubtedly bring down gold with them. There are constantly a number of gold-washers employed near Peshút on the river of Chitrál and Kámeh (Kunir). The metal is also found in the rivers of Lamghán, and in the river of Kábul, into which they fall, and is sometimes collected near Kergah and Chárbágh of Lamghán, and again near Jelálábád." MASSON'S TRAVELS. Vol. I. pp. 213.

† "Nagy is celebrated for its gold-washing, and its Rájá is said to be in possession of a very large piece of native gold, found near the edge of the boundary glæcier (in the Basha valley) already alluded to." VIGNE; KASHMIR Vol. II. pp. 288.

‡ "On the banks of the Basha stream is produced more gold-dust than in any other part of Little Thibet, and it is the only place the Rájá reserves to himself for that purpose. Any other person may wash the sand for gold elsewhere, but the value of the quantity collected, and of the time expended, is so nearly balanced, that I have never seen any gold-washers but once, and that was near the village of Kerris." IBID, pp. 287.

Panjkorah, and the Beráhwol valley, situated between it and Bájawar, contain numerous iron mines, which have been worked for centuries past, and still continue to supply the surrounding countries with that useful metal. The principal mines are in the Lás-púr mountains, and the Jandáwal and Beráhwol hills, all of which are covered with dense forests, where fuel may be had for the trouble of cutting and carrying away. There are also several mines yielding, red, black, and white antimony.

Wild Animals.

The wild animals of Káfiristán, and the regions north-east and east, are similar to those found in all the northern parts of Afghánistán, Kashmír, and Ladákh; and which have been so fully described by the Emperor Báber in his interesting memoirs, and, likewise in the works of Moorcroft and Trebeck, and by Vigne, as well as other recent travellers who have written on the subject, as to render any notice here, beyond the mere enumeration of their names, unnecessary.

Lions, tigers and leopards, are said to infest the numerous ravines and dense forests, but they appear to be neither so fierce nor so large as those of central and southern India. In the more northern parts, as might be supposed, bears, both the black and the light dirty-brown species, are numerous, and make considerable and constant depredations on the gardens, orchards and vineyards. There are numbers of hyenas and wolves, which latter assembling in packs, at times commit great ravages amongst the flocks, together with jackals, foxes, and other smaller vermin.

In some of the warmer parts of Káfiristán, in the densely wooded districts, monkeys of the largest size are found, but are not very numerous; also several varieties of the deer, the antelope, the elk, the ibex, the kúchár or wild-sheep (*ovis argali*), the már-khúr, or snake-eater, etc. The musk-deer, called *sarjza'h* and *sijza'h* by the Afgháns, is found in Chitrál and Upper Káshkár, and in the hills bounding Káfiristán on the east. The Káfirs of the Kampar and Kámúz tribes employ a good deal of their time in hunting them for the sake of their musk, which is an article of barter. The wild hog is also found in some of the valleys towards the south.

The other smaller animals are, hares of two kinds, a species of rabbit or lagomys, porcupines, hedge-hogs, and marmots, together with numerous minor rat-like animals of several species.

The Gor-khar, or wild ass, is found in some parts of Panjkorah, Bájawar, and the Merrah or Desert in the country of the Yúsufzí tribe of Afgháns, between the mountains of Suwát and the Kábul river.*

Ctesias gave an account of what has been considered the same animal, two thousand years ago. He calls it by the right name, but says it has a large horn in the centre of the forehead, and thus turns it into an unicorn.† Ælian in his "Natural History," has also referred to it, and has bestowed on it, what Professor Heeren calls, its Indian name of *Kartazonon* (καρταζωνος), and which Professor Tyschen again pronounces to mean the "swift animal," or the "swift rhinoceros."

This he infers to be, "a word compounded of كرك *kerk*, the ancient and still surviving Persian term in use to signify a rhinoceros," and "تازان *tázán* the participle of تازيدان *tázedan*, to run, to fall upon;"‡ but the Professor appears to have forgotten that the rhinoceros naturally requires marshy ground, and much water. As recently as Báber's time, that animal was found in the Pesháwer district, in the neighbourhood of the Kábul river, where there is water in abundance, and much marshy land.

We need not, however, turn the wild-ass into a rhinoceros, as Professor Tyschen appears to have done, nor go so far for the

* It is also found in the Lower Deráját about Asuní and further south.

† "He (CTESIAS:) IND. cap. 25) tells us "That in the mountains of India the wild ass is found, which is as large and larger than a horse. His body is white, his head red, and on his forehead he has a horn an ell long, which towards the bottom is white, black in the middle, and red towards the tip. He is one of the strongest of all creatures, and so fleet that neither a horse nor any other animal is able to overtake him. When first pursued he runs leisurely; but by and by increases in speed. He defends himself with his horn, with his teeth, and his hoofs, and often lays prostrate many men and horses." ÆLIAN: HIST. ANIM: XVI. 20.) *Kartazonon* which Tyschen pronounces to mean the swift animal, or swift rhinoceros."

ASIATIC NATIONS. Vol. I. pp. 98, 99.

‡ IBID: TYSCHEN, pp. 367, 368.

original of the, very probably, Hellenized word *Kartazonon*, which is evidently compounded of *خر*, *khar*, an ass, and *تازان* *tázán*, the present participle of the Persian verb *تاختن* *tákh-tán*, to run, etc.; thus combined—*khar-i-tázán*, “the swift or fleet ass.” Ælian’s designation for the wild-ass thus appears plain enough, the guttural *kh* of the Persians and Arabs, having been dropped for simple *k*.

Other remarks, however, of Ctesias, that the animal in question possesses huckle-bones, leads me to believe that neither wild-ass nor rhinoceros is referred to; and gives me a ray of light in the matter. That author says he himself saw such a huckle-bone, which resembled that of an ox, but was as heavy as lead, and of a bright red colour; and moreover that “the animal was as much hunted for its huckle bones as for its horns.”*

The Ghalzí tribe of Afgháns, at the present day, are passionately fond of a game played with a certain number of huckle-bones placed in a ring something like the game of marbles, and aimed at by the player with another huckle-bone discharged from between the finger and thumb. The huckle-bones of an animal known as the *takah* are particularly sought after on account of their size, strength, and great weight. These are coloured red by exposing them to the smoke of a fire. The game is called *bijal-bázi* from *bijal* a huckle-bone; and is very ancient. The animal is described as being about the size of an ass or pony; in figure like a deer, but more stoutly built. The hair is deep fawn colour, and grows to six or eight inches in length on the shoulders; belly white; horns long, black, and very stout, and sloping parallel to the neck; and from catching in the branches of the trees on the animal’s raising its head whilst grazing, often occasion its capture, which otherwise is very difficult from its swiftness, and its always keeping to the mountains. The *takah* is found in all the alpine regions of Afghánistán as far south as Kalát-i-Ghalzí, and as far west as the mountains of the Hazárahjât between Kábul and Herát. This is evidently the *Kartazonon* which has puzzled the philosophers.

The rivers of Káfiristán and the surrounding regions of the Hindú Kush abound in fish; but they are not used by the Káfirs for food, being held in great detestation by them; and they do not appear

* *IBID*: Pp. 335, 336.

to be relished by the Yúsufzí Afgháns. Otters are captured in great numbers, in the Chitrál or Káshkúr, and upper branches of the Panjkorah rivers, for the sake of their skins, which are made into cloaks.

The birds consist of several species of the eagle and falcon, and hawks of many descriptions and great beauty, used by the Yúsufzí Afgháns of these parts, who are passionately fond of falconry. Afgháns formerly might have been constantly seen in the Kíssah Kh'áuí Bázár, at Pesháwer, near the Kábul Gate, and also in the villages round, with hawks on their fists. These birds often fetch a high price, varying from ten to a hundred and a hundred and fifty rupees each, and sometimes more. The other birds are, wild-geese, duck, teal, and other water-fowl, kulang, cranes, herons, partridges, quail, chikor (the bartavelle or Greek partridge) which is larger than the common bird, and found in immense numbers on the sides of the rocky hills; the Impeyan pheasant, said to be of two or three kinds; jungle fowl; pigeons, doves, magpies, larks of several species, the goldfinch, bullfinch, sparrow, and other common birds.

Snakes and other venomous reptiles are few; but there is a species of snake, called the *knochah* or *kawchah*, in Pushto, of a dirty earth colour with red spots, whose bite is mortal. It is very thick in proportion to its length, being about the size of a man's arm and under a yard in length, and altogether very repulsive in appearance. It infests rocky and stony places.*

In tilling the land both in Káfiristán and the districts to the south and west, men and women alike assist. In the valleys, or wherever the land is sufficiently level, oxen are used for ploughing, at the rate of one to each plough; but on account of the generally irregular face of the country, the Sī'áh-posh tribes, as well as their Nínchah and Muhammadan neighbours to the south and west, are obliged to sow their grain wherever they may be fortunate enough to obtain available spots of land. These mostly consist of narrow terraces or plateaux on the sides of steep hills, sometimes natural, but often

* "The *gunnus* or *aphia* (οφις?) is said to be very poisonous; it is about a yard in length, and very thick, and its appearance altogether, I was informed, was very repulsive. It is found in rocky places on the eastern side of the valley (of Kashmir)." VIGNE: KASHMÍR Vol. II. pp. 21.

constructed at the expense of great time, labour, and perseverance, where oxen could not be brought; and in these places the soil is ploughed by hand.

The plough used by the Káfir tribes is a very rough and primitive affair, consisting of a piece of wood about eight feet in length, terminating in three prongs of about a foot long, and somewhat in the form of a trident, save that it is slightly curved towards the prongs or teeth. A rope of goat's hair is fastened to this machine, at the middle, and this the woman or man holds with both hands. Should the plot of ground be of any size, the back of the individual—generally a female—is turned from the plough; and with the rope over one shoulder, she pulls it along, whilst a man guiding and pushing it forward with one hand, scatters the grain with the other, from a little bag fastened round the waist, as he goes along. If the plot be small, as is generally the case, the woman stands on one side of the little field with her face turned towards the plough, whilst her husband, father, or brother, as the case may be, stands at the other. She then merely draws the plough towards her, whilst he guides it, and sows the seed as before described. By this method the soil, as may be easily conceived, is merely turned; but when an ox can be attached, it is done in a better manner. The ploughing and sowing having thus been completed, both persons go over the land again, and cover up the grain with their feet.

The principal harvest takes place in the autumn, and the crops, which are sown in the spring, greatly depend, as before mentioned, on the rain to bring them to perfection. When the corn is sufficiently ripe, it is cut down, carried home, and the grain separated from the straw by oxen treading over it.

Burnes, in his remarks on the Káfirs,—as quoted by the Edinburgh Reviewer—"imbibing the prejudices of his Muhammadan informants, calls the Káfirs a race of savages," and says, "There is nothing either in their customs or religion, which seems to be any way remarkable. The women *do all the out-door work*, and follow the plough: it is even said that they *are sometimes yoked in it along with an ox.*"

Women, as I have related, assist the men in ploughing, as well as in other agricultural labours, and in the former case only where

oxen cannot possibly be brought for that purpose; but in no instances are women yoked to the plough *along* with cattle. What is there more natural than that a poor uncivilized man, possessing but the bare necessities of life, and unable either to pay for, or to obtain help from others, should be assisted by his wife and children in tilling the scanty portion of land, on which they all depend for their daily subsistence? Do not women, even in civilized and polished Europe, up to the present moment, work in the fields, and perform many other laborious duties, adapted for men alone? and but too often to support an indolent and drunken husband and numerous family? Hear what that honest writer William Howitt, in his "RURAL LIFE IN ENGLAND" says on this very subject. "A person from the South or Midland counties of England, journeying northward, is struck when he enters Durham or Northumberland with the sight of *bands of women working in the fields under the surveillance of one man*. One or two such bands of from half a dozen to a dozen women, generally young, might be passed over; but when they recur again and again, and you observe them wherever you go, they become a marked feature of the agricultural system of the country; and you naturally enquire how it is that such regular bands of female laborers prevail there. The answer in the provincial tongue is—O they are 'Bonditchers,' i. e. Bondagers. Bondagers! that is an odd sound, you think, in England. What have we bondage, a rural serfdom, still existing in free and fair England? Even so. The thing is astounding enough, but it is a fact. As I cast my eyes for the first time on *these female bands in the fields, working under their drivers*, I was, before making any enquiry respecting them, irresistibly reminded of the slave-gangs of the West Indies: turnip-hoeing, somehow, associated itself strangely in my head with sugar-cane dressing; but when I heard these women called *Bondagers*, the association became tenfold strong.

"On all large estates in these counties, and in the south of Scotland (Burnes's own country) the bondage system prevails. No married laborer is permitted to dwell on these estates, unless he enters into a bond to comply with this system."

We all know how the women in this country from Pesháwer to Cape Comorin, work in the fields; so we are, on the authority of Sir

A. Burnes, to consider the people of India as well as the people of England, to be "a race of savages." The former "mild race" have certainly—no small portion of them—lately shown symptoms of being nothing better than savages and cannibals.

With the exception of a few slaves, the Káfir tribes send but little out of their country, the only exports being a little wine, vinegar, wax, and honey. They import all sorts of small goods, such as needles; horu-combs; scissors; small knives, of Kábul or Pesháwer manufacture, and very roughly made; balls of cotton; thread; coarse cotton cloth, called in India *kádi*; Loháni chintz—so called because brought into Afghánistáu in the first place by the Loháni tribe of Afgháns, who are the great carriers of these regions; indigo for dying purposes, and also used by the women for making false moles on the face; gunpowder; lead and salt.

The Káfirs levy a tax termed *kalang* from the Muhammadans and Nímchahs, who dwell in the vicinity of their frontier, and who are unable to prevent their inroads, at the rate of one skein or ball of thread or cotton, and a Tabríz *sír* of salt, equal to about eight pounds English, for each inhabited house. Any one who chooses to invest an hundred rupees in the description of goods I have adverted to, will at the village border of Noyah be able to obtain two male or female slaves.

The Káfirs, by their own account, are divided into eighteen tribes,* viz.; Kátí-hí; Sí'áh-posh—this word being, however, a Persian derivative, signifying *black-clad*, cannot be received as the real or original name of the tribe—Pashá-gar; Páu-dú; Wámah; Mandúl; Samá-jíl; Tapah-kál; Chánák; Dúh-tak; Sá-láo; Kaţár; Kampar; Ká-múz; As-kín; Ash-pín; Wadí-hí; and Wáe-kal.

They are termed Káfirs or Infidels by their Muhammadan neighbours; and also by the general designation of Sí'áh-posh, or black

* MASSON, in his TRAVELS: Vol. I. pp. 214, makes the following ex cathedrâ declaration concerning the Káfirs, which I venture to contradict. "As regards the division of the Scaposh into tribes, none knows, or pretends to know, any thing about them;" yet in the same page, he goes on to say that; "on the Khonar (Kunir *not* Khonar) frontier, the nearest of their villages are Kattar, Gamber, and Delh Uz;" the first of which is the name and chief village of one of the eighteen tribes above mentioned.

elad, the same name as applied to the second tribe enumerated above; and by this appellation they are now principally known.

Some of the Afgháns distinguish them as *Tor* and *Spln* Káfirs—white and black—from a slight difference existing in the dress of some of the tribes, as mentioned in a subsequent page.

The different parts of the country they at present occupy, are as follows.

Káfi-hí.

The people of the *Káfi-hí* tribe have to a great extent become Muhammadans, but in name only; for they seem to be excessively ignorant of the simplest tenets of the faith. The chief or head-man of these is Muhammad Núr. The tribe was formerly settled in the *darah* or valley of Parchaghán, on the Panjsher river, where a few families, amounting to about 2,500, still dwell, along with a number of Hazárahs under Kadkhudá, Sayyid Mirzá, and also several Tájjik families under Kadkhudá, Kází. The main body of the *Káfi-hís* is now located in the country lying two days journey, (fifty miles,) north-east of the valley called Kandah-i-Níl, which is of considerable size, and takes its name from the source of the river rising in the northern part of Káfiristán, and known to the people as the true source of the *Amán* or Oxus. It lies to the north-east of the valley of Parchaghán, east of the Shúnah river, and north-west of the Lamghán district.

Síáh-posh.

This tribe originally dwelt in the *darah* or valley of Kásí-gar. The country the *Síáh-posh* now occupy, together with a small number of the Pashágar tribe, lies to the west of the valley held by the *Káfi-hís*.

Pashá-gar.

The Pashá-gar tribe formerly held the *darah* or valley of Sae-kal,* a portion of which, containing the four large towns of Dúmíah, Kandlah, Paranddol, and Tárhú, it continues to retain to the present time. The people of these places have become Muhammadans. Of the remainder of the tribe, who follow their ancient

* "Leaving the dale of Nanguahár therefore, and pushing speedily forwards, we passed Sae gal (or Sae-kal) and advanced up the valley of Birain." BABER'S MEMOIRS.

religion, some dwell in the country of the Sí'áh-posh, and some to the northward in the valley of Míl.

Pán-dú.

The Pán-dú tribe formerly occupied the *darah* or valley of Po-han ; and at present holds the eastern portion of the *darah* of Míl. Here they have several villages ; viz. Mukú-watú, the Kadkhudá, or headman of which is named Dáhwi ; Niw-lí ; Teylí ; Pándú and Parmah-wál, under Kadkhudá, Hasan. A very few only have become converts to Islámism. In this district, in particular, might makes the right ; and the authority lies in the hands of, or is seized by, him who has the greatest quantity of worldly goods, and the most numerous kindred. The *darah* of Najil lies to the west of the valley of Míl.*

Wámah.

The people of this tribe continue to dwell, in conjunction with the Tapah-kál tribe, in the valley of Inkár, which is connected with six smaller ones, named, Báyzid, Bahan, Shankar, Makán-jú, Kadol-Khand, Landah-gán, and Darah-i-Má'isht. Some few of the people of the tribe have become Muhammadans ; but the greater number still follow their ancient faith, and look down on these converts with the greatest contempt, and compel them to dwell apart.

Mandul.

This tribe formerly dwelt in the Shamah-kat valley, lying to the west of the Lamghán district, and containing fourteen smaller *darahs* or valleys within it. The Mandúls were driven from this locality as lately as the reign of the Moghal Emperor, Jehángír. They are now held by the Sáfis of the Ismá'íl clan, a small and independent tribe of Afgháns, but accounted among the Sulímán Khel of the Ghalzís. The Mandúls, at present, dwell in a portion of the valley of Kandah-i-Níl, which is also the present location of the Káfi-hí tribe. The Mandúls retain their ancient religion.

Samá-jíl.

The Samá-jíl tribe in ancient times dwelt in the Shamakat and its contiguous valleys, along with the Mandúls ; and at the present day

* "The part of Káfiristán nearest to Alishang is Meil (Míl) ; and the river of Alishang comes down from Meil." BÁBER.

they occupy a portion of the valley of Kandah-i-Níl along with them and the Káfi-hís. None of the Mandúls have embraced Islámism.

Tapah-kál.

The tribe of Tapah-kális located in the valley of Inkár, which they have held for some centuries past, along with the converted Wámah families. The Tapah-kál are nearly all Muhammadaus by profession, but are, nevertheless, considered by their neighbours of that faith to be worse than the unconverted Káfirs generally.

Chánák.

The people of this tribe have all become Muhammadaus, and retain their original district—the valley of Múkah—which contains fourteen villages of no considerable size. It lies to the west of Islámábád, a town of Lamghán, and south of Dúmíah in the Sáo-kal *darah*, held by the Pashágar tribe.

Dúh-tak.

The Dúh-tak tribe formerly held the districts about Koh and Korinj, which form the angle between the river Kow and the Najíl or Alíshang, just before they unite at Tírgárí, a village of the Lamghán district. Some few of the Dúh-tak tribe have become converts to Muhammadanism, and now dwell in the Inkár valley, along with the small portion of the Wámah tribe, which has, as well as the generality of the Tapah-kál, embraced the same faith. The larger number of the Dúh-tak tribe, at present inhabits the country towards Chegán-sará'e, through which flows the river of Chitrál or Káshkár, (called erroneously the upper branch of the Kámah, but really another river falling into the Kámah here,) and on the borders of the country of Káshkár-i-Pa'in or Lower Káshkár, known also amongst the people of these countries as the territory of Sháh Kaṭor, but now ruled by his son Tajammul Sháh. This state will be hereafter described.

Sá-láo.

This tribe in former times, held the *darah* or valley of Ranáh kot or Sá-láo, but for very many years past has been dwelling in that part of the centre of Káfiristán watered by the Shúnah river, towards the highest ranges of the Híndú Kush, also called the Shúnah valley. It lies to the west of the Káfi-hí country, north from Lam-

ghán, and to the eastward of the valley of Kandah-i-Níl. The people continue to follow their ancient faith.

Kaṭṭár.

This tribe continues to dwell in the *darah* or valley of Núrgíl, which they held in Báber's time. He thus notices them. "In the hill country to the north-east (from Kábul) lies Káfiristán such as Kaṭṭár and Gebrek;" and again—"Núrgíl lies to the west, and Kunir to the east of the river; and the lower part of this Tumán is called Milteh Kandí, below which the country belongs to *darah* Núr and Ater."*

The Kaṭṭárs follow the religion of their ancestors, and are accounted by the Afgháns of these parts, as the most bigotted of the whole of the Si'ah-posh. Abd-ul-Hamíd, the Shekh Saædi, of the Pus'hto poets, thus refers to them in one of his odes.

كافران به د كټار مسلمانان شي كه رقيب مي په ژړا و ترسيده

The Kaṭṭár Káfirs will as soon become converts to Islám,
As the guardian (of the beloved) be softened by my tears.

Kampar.

The country inhabited by the Kampar tribe is also situated in the valley of the Káshkár or Chitrál river, and to the north of the district of Núrgil, in which the Kaṭṭár tribe dwells. The Kampars retain their ancient faith.

Kámúz.

This tribe inhabits the valleys lying to the north of the Kampar district of Núrgil, and between the Káshkár river and the highest range towards Badakhshán, bounding the territory of Lower Káshkár to the south. They pay a small tribute to Tajammul Sháh in acknowledgement of his supremacy; but none of them have become converts to Muhammadanism.

The tract of country occupied by the three preceding tribes of Kámúz, Kampar, and Kaṭṭár, through which the Káshkár or upper portion of the Kámah river flows, is the most easterly portion of Káfiristán, and forms the boundary between them and the above named state, as also of Panjkorah and Bájawer. The tract here mentioned as inhabited by these three tribes of Kámúz, Kampar, and Kaṭṭár, is the same, in all probability, as that alluded to by

Báber on taking Chegán-sará'e in 1514, at which time, he says, the Káfirs of Pích came down to the assistance of the people of that place.

Askín.

The Askín tribe holds the upper valley of the Tagáb river, towards the highest range of the Hindú Kush. They have for the most part become converts to the Muhammadan faith, and are subject to Tajammul Sháh, son of Sháh Kaṭor. Those of the tribe who retain their ancient religion pay this ruler a trifling tribute.

Ashpín.

The Ashpín Káfirs dwell in the same district as the Askíns. Numbers of them have changed their religion, and are also subject to Tajammul Sháh of Lower Káshkár. The remainder are tolerated in their ancient religion on the same terms as mentioned with reference to the preceding tribe.

Wadí-hú.

The Wadí-hú tribe continues, as heretofore, to inhabit the *darah* or valley of Inkár. A few have become Muhammadans.

Wáe-kal.

The country of the Wáe-kal tribe, lies to the southward of Lower Káshkár, along the eastern bank of the Káshkár or Chitrál river, and bounds the Kampar district on the north. They have not changed their faith, but they pay a small tribute to Tajammul Sháh of Káshkár, in acknowledgement of his supremacy.

From the foregoing account, it will have been perceived, that, out of the eighteen original divisions or tribes into which the S'áh-posh are divided, only ten; viz., the Káṭi-hí, S'áh-posh, Pa-shágar, Mandúl, Samájl, Sá-láo, Kaṭṭár, Kampar, Kámúz, and Wáe-kal, retain their ancient faith, and observe their former customs. They may be considered along with the tribes of Pándú, Wámah, Dúhtak, and Wadí-hú—a few only of whom have embraced Muhammadanism—as now constituting the whole of the real Káfir race; for the Tapah-kál, Askín, and Ashpín are for the most part of that religion; whilst the whole of the Chánáks have become converts to Islámism.

Those who have thus abandoned the religious observances of their forefathers, and who dwell in the valleys and hills bordering on the Afghán territories to the south and west, are called by the latter, *Nímchahs*; but they are by no means a separate race of people, as considered by Burnes and others, being really the converted portions of the Sí'áh-posh Káfirs I have above alluded to, and the descendants of those who have intermarried with their Afghán neighbours, or the offspring of Afghán females whom they may have captured in their forays. The very name of Nímchah (نیمچه) — a Persian derivative from نیم *ním*, half or the middle, and چه *chah*, a particle added to nouns to form diminutives, and to express somewhat of contempt — alone would suggest this solution of the question; even if the valleys, which the Nímchahs are stated by those authors as inhabiting, did not exactly agree with the names of districts and tribes of the Káfirs, mentioned in the foregoing account, as residing in the vicinity of the Afgháns. The names of the valleys I allude to, are, Darah-i-Shúnah, Atú, Darah-i-Inkár, Darah-i-Wadí-hú, Mardamtak, Darah-i-Níl, Pándú Darah, Darah-i-Tapah-kál, and Darah-i-Máshamund; seven of which are inhabited at the present day by six out of the eight tribes I have noticed as having abandoned the religious customs of their ancestors, and become, in name, followers of the Muhammadan faith. The two tribes of Askín, and Ashpín, are not termed Nímchahs by the Afgháns, who know little of them, as they are subject to the Shah of Káshkár or Chitrál, and are very distant from the Afghán boundary.

As recently as the reign of the Moghul Emperor Jehángír, several families of the tribes inhabiting the valleys to the west of Lamghán, consisting of the *darah* of Shamatak, and fourteen smaller ones contiguous, embraced the Muhammadan faith. These places are now occupied by the small Afghán tribe of Sáíí.

In the reign of the sovereign just alluded to, we find from the Persian work entitled *Khulássat-ul-Ansáb* of Háíz Ráhmát Khán, an Afghán of the Kotah-khel, that in his days, even, the Afgháns undertook expeditions against the Káfirs or Infidels of several parts of Afghánistán, taking their wives and children prisoners; and at the same time remarks, that the infidels of Darah Lamghán, Darah-i-

Pích, Darah Kuner, belonging to Kábul and Jelálábád, together with Tálaáh, Panjkorah, Chúnlah, Buner, Dramtáwer, Paklí, and other places, dependencies of Peshawer and Langerkot, were in this manner made converts to Islám.

The so-called Nínchahs continue to intermarry with the Káfirs and Afgháns indiscriminately. They also act as guides on either side, when the Káfirs attack the Muhammadans, or when the latter make forays into the country of the former, and sometimes even join in these expeditions. They are excessively ignorant of the Muhammadan creed, and most of them even appear ignorant of the necessary forms of prayer. They all drink a strong undistilled wine, which they keep a long time before broaching, another proof of their connection with the Síáh-posh tribes.

The Síáh-posh tribes have no history, as far as I can discover, by which we could attempt to trace their origin, neither have they any written character whatever; and the whole of the different tribes speak the same language. They, however, claim brotherhood with the Frangis; and during our occupation of Afghánistán, they attempted to enter into friendly intercourse with us, and even sent delegates from their country with this view, to the late Sir W. H. MacNaghten, Bart., whilst at Jelálábád in 1839; but these simple-minded and confiding people were, in true John Bull fashion, harshly and coldly repulsed. The circumstance was thus related to me by an eye-witness, an officer who served in the Sháh's Contingent, and one of the prisoners with Lady Sale.

In the end of 1839, in December, I think it was, when the Sháh and Sir W. Macnaghten had gone down to Jelálábád for winter-quarters, a deputation of the Síáh-posh Káfirs came in from Núrgil to pay their respects, and, as it appeared, to welcome us as relatives. If I recollect right there were some thirty or forty of them, and they made their entry into our lines with bag-pipes playing. An Afghán Peon, sitting outside Edward Conolly's tent, on seeing these savages rushed into his master's presence exclaiming; "Here they are, Sir! They are all come! Here are all your relations!" Conolly amazed, looked up from his writing, and asked what on earth he meant; when the Peon, with a very innocent face, pointed out the skin-clad men of the mountains, saying, "There!

don't you see them? your relatives, the Káfirs?" I heard Conolly tell this as a good joke, he believing at the same time, that his Afghán attendaut was not actuated by impudence in attributing a blood connection between his master and the Káfirs.

"The Káfirs themselves certainly claimed relationship; but I fear their reception by poor Sir William was not such as pleased them; and they returned to the hills regarding us as a set of purse-proud people ashamed to owe our Coutry Cousins.

"During the remainder of our sojourn in Afghánistán nothing more was seen or heard of this singular race, at least not that I am aware of; and I cannot but regard it as most unfortunuate, that, when so favourable an opportunity presented itself of becoming acquainted with these tribes and the coutry they inhabit, they should have been allowed to depart unconciliated, and no advantage have been taken of their visit."

The rare opportunity for sending a European Officer back with them to explore their country was thus, as usual, neglected and altogether lost.

The Káfir tribes appear to have been at enmity with their Muhammadan neighbours to the south for ages past; but they are generally on friendly terms with the people of Badakhshán and Chitrál or Chitrár, and Upper Káshkár, and occasionally enter into treaties with them.*

Timúr made an unsuccessful attempt to reduce them when on his way to invade Hindústán, at which time, he detached ten thousand men against them. This force advanced to Inderáb, a town of Badakhshán, and thence proceeded by Ferijan, on the southern slope of Hindú Kush, into the Káfir country; and in the valley of Pohun—the former residence of the Pándú tribe—on the summit of a lofty mountain, known as Mount Káhun, the invaders found the remains of a vast fortress. This they repaired; and it is called "Timúr Hissár," or "Timúr's Castle," to this day. A more particular account of it will be found in another place. The Mo-

* "The Káfirs are on good terms with the Chitrálís, and occasionally mix with them—my authority is the grandson of the exiled Rájá of Chitrál, who was driven out by Sháh Kuṭor. I saw him in Little Thibet." VIGNE'S GHUZNÍ KÁBUL, ETC. pp. 235.

ghal troops, however, seem to have met with but little success, and being unable to bring the Káfirs under subjection to their yoke, soon abandoned the attempt, and retired, somewhat precipitately, through the Kawak Pass.*

The emperor Báber, in his "Memoirs" gives an account of his several forays into Káfiristán; but he does not appear to have entertained the idea of permanently occupying any part of the country, and probably saw the difficulty of such an undertaking from the determined opposition he met with from these hardy mountaineers.

About the end of the last century, the Muhammadan chiefs of Bájawer, Panjkorah, Kunir, and others, confederated together and entered the Káfir country, where they burnt some hamlets and forced several persons to embrace Islámism, and these are now included amongst the Nímchahs; but the invaders were soon compelled to retreat, after sustaining severe loss.

Five or six years since, the Bájawer chief made an inroad into that part of Káfiristán adjoining his own district; burned and sacked some villages; and succeeded in carrying off a number of people, whom he subsequently sold into slavery.

In mode of dress the Káfirs somewhat differ from each other; but all wear the black goat-skin garments, from which they derive the general name of Sí'áh-posh, or Black-clad.

The men wear a tuft of hair on the crown of the head, but the beard is worn according to individual taste—some never shave, others merely shave round the mouth, and others again cut off the beard entirely.

The dress of the Sí'áh-posh, Kámúz, Kampar, Kaṭṭár, and Wác-kal tribes is precisely alike, viz. ;—a shirt, drawers neither very tight nor very loose, and a *lúngí* or scarf, all of coarse cotton, besides a black dress similar to that worn by the faḳírs or devotees at Kábul, consisting of a wide *chokah* or cloak with short, wide sleeves, made of a peculiar sort of wool. This they put on over the under-dress; and over all are worn the goat-skin garments. Herodotus† in his account of

* HIST DE TIMUR BEC. Vol. III. p. 5.

† "The Caspians clothed in goat-skin mantles, and carrying bows made of cane peculiar to their country, and scimitars, joined the expedition. * * *

the army of Xerxes, mentions several nations who dressed in a similar manner, consisting of tribes from the east and north-east of the Caspian Sea, and adjoining the Sea of Aral—the Caspii, the Utii, and others; as also the inhabitants of the mountainous regions on the south-eastern boundary of Great Bucharia, the people of Belúristán or Land of Crystal,* Gilgitt, and others.

The remaining tribes—the Kátí-hí, Pashágar, Pándú, Wámah, Mandúl, Samá-jíl, Tapah-kál, Chanak, Dúh-tak, Sá-láo, Askín, Ashpín, and Wadí-hú, wear a dress called a *chakman*, which is sometimes brought to Kábul for sale, and is manufactured from wool of various colours; drawers called *buzo* also made of wool; and a shirt of coarse cotton cloth, as worn by the other tribes.

In the winter season, on account of the snow which lies on the ground for several months, in the more elevated districts, they are in the habit of wearing shoes of black goats-hair, woven strongly together; but in the summer they substitute the *chárúk*—a sort of half-boot made of goat-skin with the hair outwards, to lace up in front, and similar to the boots worn by the mountaineers of Panjsher, who are, by all accounts, converted Káfirs, and the shoes of skin with the hair on, worn by the Scottish Highlanders.

Few of the Káfirs cover the head; and when they do so, it is with a narrow band or fillet made of goat's hair of three different colours—red, black, and white—about a yard or a yard and a half in length, wound round the head.

The females dress in a similar style to the women of the Kohistán or Highlands of Kábul, viz.; loose drawers tight at the ancle; a long shirt or chemise; a *chádar* or veil; and a small scull-cap under which the hair is plaited.

Their ornaments or trinkets consist of flat bracelets on the wrists, necklaces, and ear-rings, and rings on the fingers. Those of the rich

The Pactyes also wore goat-skin mantles, and had bows peculiar to the country and daggers." HERODOTUS: BOOK VII. Polyhymnia 67. The Pactyes here referred to are the inhabitants of Pactyice, supposed to be the present district of Paklí, on the left bank of the Indus just above Aṭṭak, but more probably the little known parts on the opposite bank, to the north of the districts held by the Yúsufzí Afgháns.

* See description of Káshkár and Chitrál.

are mostly of silver, and rarely of gold; whilst the ornaments of the poorer classes are generally of brass and copper. The men wear rings in the ears and on the fingers only.

Those females whose fathers or husbands may have slain one or more Musalmáns, have the peculiar privilege of ornamenting their caps and locks with *kaurí* shells.* Young virgins, instead of the scull-cap, fasten a narrow fillet of red cloth round their heads, which they adorn with shells, if entitled to the privilege.

The manners and customs of the different tribes are alike: they celebrate their joys and their griefs, their marriages and their funerals, after one and the same fashion.

When a guest enters a house, whatever eatables and wines are at hand, are immediately set before him. When he has finished his repast, the people of the house eat, but not before. If the visitor should be a Muhammadan, or of any other religion than their own, they bring him a goat or a sheep that he may slaughter it himself according to the custom of his own faith; and after he has selected a portion for his food, which he is also permitted to cook himself, the family take the remainder for their own use.

After a guest has once crossed the threshold, the master of the house alone waits on him; the brother of the host, or the other members of his family being prevented from supplying the stranger with anything, even water to drink, without his sanction, so much do they respect the rights of hospitality. In the same manner, no person of the village where the guest may be staying, is allowed to entertain him without the consent of the host. If this be done, quarrels arise, in which lives have been frequently lost.† With the

* *Cypræa moneta*.

† BURCKHARDT remarks, "Among the Arabs of Sinai there is a custom which, I believe, is common to several other tribes on the southern limits of Syria, that if a stranger be seen from afar coming towards the camp, he is the guest for that night of the first person who descries him, and who, whether a grown man or a child, exclaims, "There comes my guest." Such a person has a right to entertain the guest that night. Serious quarrels happen on these occasions; and the Arabs often have recourse to their great oath.—"By the divorce (from my wife) I swear that I shall entertain the guest;" upon which all opposition ceases. I have myself been frequently the object of such disputes, in which the Bedouin women took a very active part, assembling in the females'

sanction of his entertainer, a stranger is permitted to visit the other people of the village, the headman in particular; and, on entering a house, at whatever hour of the day it may be, wine and victuals are immediately placed before him, of which he is pressed and expected to partake.

The guest, whether male or female, sleeps in the same apartment with the family; and all, it is said, are in *puris naturalibus*. I suspect by all accounts, however, that the meaning of the word "naked" is, that they take off their outer garments when they retire to rest, a natural and cleanly habit, and far preferable, in many ways, to the custom of their Musalmán neighbours, who sleep in the same dress they wear throughout the day.

Last year (1848) a Káfir of the Káfi-hí tribe came to the Muhammadan village of Moyah, where he put up at the house of an acquaintance. When bed-time arrived, the Muhammadan host, pointed out to his Káfir guest where he was to sleep. The latter became exceedingly angry and said, "You came to my house and slept in the same place as my wife and children slept in, whilst I being your guest, you have given me a separate place to sleep! what sort of hospitality is this?" The host, after much trouble and entreaty, at length succeeded in pacifying the Káfir by making room for him in the sleeping-place occupied by his wife and family.

The Káfir towns and villages, several of which contain three and four hundred houses, are almost invariably built on the steep acclivities of the mountains, on account of the general irregular nature of the country they inhabit, and also, as being better in a defensive point of view, in case of invasion. Some few are situated in the valleys and on the table lands, towards the northern parts of the country. They never dwell in tents; but some are said to dwell in caves.

Their houses are generally built of stone, in frames of wood, with flat roofs, and of one story in height. Some dwellings contain, according to the means of the owner, several rooms, furnished with

apartment of the tent where I sat, defending the rights of their husbands with all the loquacity that their lungs could supply. It is a received custom in every part of the Arabian Desert, that a woman may entertain strangers in the absence of her husband. Some male relation then does the honours, representing the absent owner of the tent." "NOTES ON THE BEDOUINS AND WAHABYS."

wooden benches or tables, stools made of wood, and sometimes of wicker-work covered with goat-skin: for the Káfirs cannot squat down in the Oriental fashion; and in this point, in particular, they bear a striking resemblance to Europeans in being unable to sit-cross-legged with any comfort.* Their beds are made of wood, and similar in form to the Indian *chárpáe*—a simple frame with short legs, over the frame of which they lace bands of leather.

The Síáh-posh tribes are rich in herds of oxen and cows, and flocks of sheep and goats, the latter of a very superior breed. They also rear immense numbers of fowls.† They eat beef, but the flesh of sheep and goats, particularly the latter, is more commonly consumed, as also the game they capture in the chase, such as deer, antelope, ibex,—the antlers of which they set up in their places of worship—and the *kúchár* or mountain sheep, and other smaller animals. They sometimes eat the flesh of bears, but this is very seldom. Burnes describes them as eating monkeys, which is not truly the case; and as far as I can discover, these animals, if they really exist in the country, are extremely rare. Monkeys are found generally in tropical climates, not in such localities as the valleys of the Hindú Kúsh, where snow often lies on the ground for months together, and which are surrounded on all sides by mountains capped with the snows of ages. It is possible, that, in the more sheltered valleys—which are said to be much warmer than the nature of the country and climate might lead us to expect, and where grapes attain great perfection—these animals may be found, but only in small numbers.

Their other articles of food, consist of unleavened bread, milk, curds, butter, honey, a few herbs, vegetables, and fruit, which latter their country produces in great quantities, and of excellent flavour.

All classes of people drink a great deal of wine,‡ as do most of the

* LIEUT. WOOD in the account of his journey to the Oxus, says of a Káfir he met with—"Crossed-legged he could not sit, for in this respect the Káfirs differ from all eastern nations, and like Europeans prefer a chair, or anything raised, to a seat upon the ground."

† "In the winter season they fatten numerous poultry." BÁBER'S MEMOIRS.

‡ "In this sequestered tract of country grapes and fruit are produced in great abundance, and it also produces a large quantity of wine, but in the making they boil it. The people are wine-bibbers—they never pray, neither fear God nor

inhabitants of the neighbouring countries professing the Muhammadan religion—the Chitrális or Káshkárís, who are considered to be of the same stock as the Káfirs—the people of Gilgitt, and Gunjut, belonging to Yásin—the Badakhshánís and the Nímchahs, who are either converted Káfirs, or descendants of those who have intermarried with their Muhammadan neighbours. On public occasions the Káfirs are very liberal with it, and it is put into vessels and placed in convenient places, where all who come may help themselves. There are stringent regulations regarding picking the grapes before a certain day, and great care is taken in their cultivation.

The wine is much better in flavour than in appearance, and does not seem to be of a very intoxicating nature, judging from the deep potations in which they indulge, without becoming over excited or quarrelsome. In the manufacture they boil it, and use it without filtering, which is the cause of its untempting appearance.

Bread, the staple article of food, is made from three different kinds of grain—wheat, barley, and *arzun* or millet mixed together and ground into flour in a hand-mill. This is made into thick cakes or bannocks, baked in an oven, or on an iron dish, called in Scotland a “griddle,” suspended over the fire.

Their method of slaughtering cattle is strange and superstitious. The animal intended to be killed is brought out, and is seized by the head by one man, whilst a second strikes it a blow on the neck with a sword or long and sharp knife. If the head is severed from the body by one stroke, which is generally the case, the flesh is considered pure and fit for food, but if not, they give the carcase to the Bárís, a certain tribe residing amongst them, held in the light of Parialis, or as Helots amongst the Greeks, and who would seem to be the remnant of the aboriginals of the country—the Paropamisidæ of the classical authors. These people carry on all the mechanical trades, such as blacksmiths, weavers, carpenters, cutlers, etc. The Káfirs themselves look upon such occupations as mean and disreputable, and consider the profession of arms and agriculture alone to be creditable. On jour-

man, and are infidels. So prevalent is the use of wine amongst these people, that every Káfir has a *khig* or leathern bottle full of wine hung round his neck, for they drink wine instead of water.” BÁBER'S MEMOIRS.

neys these Bári's are employed to carry baggage, and in all meaner occupations.

It is a mistaken idea to imagine that the Káfir tribes sell their own children, as Burnes mentions, at the rate of twenty rupees the span. Whenever the people of Chitrár or Chitrál, and Lamghán, who are generally at peace with them, come into their borders for the purpose of barter and for purchasing slaves, they sell them the children of the Bári tribe, before alluded to. Yet, uncivilized as they are, it is rather improbable that they would show much hesitation or compunction, for a good reward, to kidnap and sell their neighbour's children if opportunity offered; nevertheless, it is of rare occurrence.

All broken victuals are kept for these Bári's, who sometimes come and stand behind a person whilst eating, to receive whatever may be left uneconsumed. But if a Bári chanees to come in front of a Káfir whilst eating, it is considered defilement, and the aggressor is well abused, and soundly beaten also for so doing; and cases have been known wherein Bári's have been killed by the enraged Káfirs, although the commission of the capital crime is likewise accounted defilement.

Some few years since, a man of the Wámah tribe, on an occasion of this nature, in a fit of rage killed a Bári, and from that day to this his own wife has neither lived in the same house with him nor eaten in his company; and whenever she happens to see him, she says, "Oh mean one! thou hast slain a Bári: thy hand is unclean!"

Once every year the Káfirs hold a grand and ancient festival which continues from twenty to forty days. Great preparations are made for its celebration; and large quantities of wine, clarified butter, fruit, and other eatables, are collected by the people before hand. On this festive occasion they do not eat at home, but visit their acquaintances in rotation, with whom they remain four and five days at a time. When the day arrives, a large cauldron of clarified butter, which has been set aside for the purpose, is kept ready heated in every house; and round it drinking vessels are arranged. Every person who enters the house is expected to take a cup-full from the cauldron and drink it off, otherwise it is accounted an insult, and enmity immediately springs up. During this festival, the villagers

assemble together in the open air and make merry. The men perform a sort of war-dance; and the women fasten little bells round their waists and dance together. Their only musical instruments are a sort of tambourine, a pipe or fife, together with a description of bag-pipe.

The day preceding the termination of the feast, the whole of the people—male and female, young and old—congregate on the green in front or in the centre of the village, where all assemblies take place—the females on one side, the males on the other; and feasting and carousal—singing and dancing—are kept up with great spirit, until about midnight, when on a given signal, the lights are suddenly extinguished; the men rush on the women; and each man seizes the hand of the nearest female, or one whom he may have selected before hand, if he can manage to approach her in the scuffle which now ensues. He then takes her away to some private place and retains her until the morning. On these occasions it makes very little difference who the fair one is, whether his own wife or that of another—his own daughter or sister or another's; and as might be supposed, very ludicrous, as well as painful mistakes, are apt to occur. This particular day is called the Chilum Chutí (چلم چطی), and takes place about the Hindú month of Sirád.

This horrid scene of debauchery is similar to that enacted at the festival in honor of Venus, celebrated by the ancient Babyloians; and which is mentioned by Rollin in the following terms. "There is nothing more horrible, or that gives us a stronger idea of the profound darkness into which idolatry had plunged mankind than the public prostitution of women at Babylon, which was not only authorized by law, but even commanded by the religion of the country, upon a certain annual festival, celebrated in honor of the goddess Venus, under the name of Mylitta, whose temple, by means of this infamous ceremony, became a brothel, or place of debauchery. This wicked custom was still in being and very prevalent when the Israelites were carried captive to that criminal city; for which reason the prophet Jeremiah thought fit to caution and admonish them against so scandalous an abomination."* These licentious rites are similar to those instituted by Pír Roshán, the founder of the Roshánian sect, amongst the Afgháns, in the sixteenth century.

* ROLLIN. ANCIENT HISTORY. Vol. I. pp. 219, 220.

Several of the Káfir customs, and that just related, in particular, bear a strong resemblance to those of the Yezidis or Devil Worshipers, mentioned by Morier in his "Travels." He says:—"The Yezidis, or the worshipers of Satan, as they are frequently called, are one of the numerous sects which were formed in Mesopotamia, among the Musalmáns, after the death of their prophet, and extended themselves more particularly among that ancient people, the Kúrd.

"By the true believers they are looked upon as accursed; their name is synonymous with blasphemers, barbarians, and men of blood. Owing to the want of written records, it is very difficult to procure any accurate information concerning them, as they preserve great secrecy in matters of religion. The general report is, that the first principle of the Yezidis is to ensure the friendship of the devil, and to defend his interests by the sword. They never mention his name, and even adopt all sorts of circumlocution rather than pronounce any word or sound which expresses it. Whoever approaches their habitation must be careful not to pronounce the word "*Shaitán*" and "*láhnat*"—"devil" and "accursed," for fear of being ill-treated, or even put to death. The evil spirit has no precise name in their language. They designate him the Shekh Mazin, or the great chief. They admit of the Prophets and the Saints revered by Christians, and respect the monasteries bearing their names, situated within their territories.

"Without prayers, without fasts, without rites, they have no religious festivals, except one on the 10th of August, when they assemble in great numbers in the neighbourhood of Shekh Adi. At that time many Yezidis come from the most distant points; the festival lasts all that day and the night following; and during their passage to the place of congregation, they do not scruple to rob and plunder. Married women go in numbers to the surrounding villages, and on that night it is said, after having eaten and drank their fill (male and female together) the lights are extinguished, and nothing more is said until the morning."

To return to the Káfirs—The day succeeding the Chilum Chutí, and the last of the festival, all the people assemble together, and those who are desirous of making an inroad into the territories of their Muhammadan neighbours, get up and stand on one side. On this,

one of the elders, or chief men of the tribe arises, and like a *Kowál* or Bard proceeds to harangue the audience on the deeds and the prowess of their ancestors; how many Muhammadans they had killed in their lifetime; how many of their villages they had plundered and destroyed; and enjoins them to take example therefrom. If there should be any one amongst the assembly, distinguished for his actions against the enemies of their faith, they are recounted and enlarged upon, as also the deeds of any other individuals the orator may recollect.

When the Bard has finished his address, the people, with the exception of those who have come forward to invade the country of their enemies, disperse to their several homes, and the latter make arrangements for their departure on the crusade.*

Until they have matured their plans, and the expedition is ready to depart, no individual of the party either eats or sleeps in his own dwelling; and in whosoever house he may happen to be in the evening, there he sleeps for the night.

When the morning arrives for the warriors to set out, the people of the village or villages, as the case may be, give them provisions and wine for their journey; and those requiring arms are supplied with them. Some conspicuous hill or other place is then determined on, at which a beacon-fire is to be lighted on their return, in order that the villagers may come out to meet them. The necessary fuel or combustible for this beacon is then got ready and piled up at the appointed place; and in case any one might be so malicious as to set fire to the pile, or that it might accidentally take fire, all other persons are strictly forbidden to approach the spot, under pain of severe punishment.

Having shared the food and wine given to them by the villagers, each man places his portion in a small goat-skin bag, kept for this purpose. Before leaving the halting-ground every man conceals under a stone or in some other place, a day's provisions to serve him

* "The Spartans never went to fight without first imploring the help of the gods by public sacrifices and prayers; and when that was done, they marched against the enemy with perfect confidence and expectation of success, as being assured of the divine protection, and, to make use of Plutarch's expression, as if God were present with, and fought for them." ROLLIN: ANCIENT HISTORY, Vol. I., pp. 236.

on his return. This is done each morning before setting out for the next stage.

The war-party having arrived near the borders of the territory of their foes, determine on some spot as the base of their operations; at which place also they agree to meet, if possible, every night. On this arrangement being completed, they roam throughout the hills, forests, and valleys, in search of enemies—sometimes alone, and sometimes in parties of two or four, and at times in larger bodies. In the evening they meet together at the place agreed upon, and relate to each other the adventures of the day, and the number of Muhammadans they have killed.

A few years ago the *Síáh-posh* had no fire-arms whatever amongst them; but at present they are much better provided with flint-lock pieces than the people of the *Kohistán* of *Kábul*, *Langhán*, *Badakhshán*, or *Panjkorah*. Where these fire-arms come from, I cannot discover—probably, they are of Russian manufacture, imported by way of *Kokáu* to *Chitrál*, with the people of which latter state they are on friendly terms. I see no other route by which they could obtain flint-lock pieces, unless made in the *Panjáb* or *Kashmír*, and thence carried into their country by way of *Gilgitt* and *Chitrál*. The *Afgháns* have, generally, match-locks only.

The original weapons of offence used by the *Káfirs* are bows and arrows, the former about four feet in length, the latter nearly two; and a long and broad knife of a peculiar curved shape, and about two feet in length. They also use a smaller knife, about twelve or fifteen inches in length, for cutting their food with. Some few possess swords, the spoils of their enemies.

They so much exceed the Muhammadans, by whom they are surrounded on all sides, in point of intrepidity and skill in their mode of warfare, that, hitherto, none of their enemies—save for a very short period, and then only in far superior numbers—have been able to oppose them with success.

Their mode of fighting is, to lie in ambush near the villages and grazing grounds of their enemies; for they very rarely attack them openly or in large numbers. Being very strong and active, they seem particularly fitted for stratagem, in which they are infinitely superior to their neighbours.

If a Muhammadan falls into the hands of a party of Káfirs, and they kill him, they gain no honour thereby collectively; the credit alone attaches to him who may have first laid hands on the victim.

Those who have succeeded in slaying an enemy, will not eat or drink in the company of their less fortunate comrades; but each as he succeeds in killing a foe, is again received into their society. Those who cannot accomplish the task must be content to remain separate from the others.

They go on in this manner, day by day, for twenty days or a month, on the expiration of which time, if the expedition has turned out tolerably successful, they set out on their return; and on arriving at the beacon, fire it, in order to warn their friends in the village of their approach. The villagers—young and old—rich and poor—male and female—come out to meet and conduct them in triumph home. Those who have killed a Muhammadan in the foray, are raised on the shoulders of the crowd, before whom the young maidens dance, sing, and clap their hands, until they reach the hamlet. Those of their comrades who have not been so fortunate, have to follow behind on foot; and until they succeed, on some future expedition, in killing a follower of Islám, they are not allowed to sit in the assembly of the tribe, neither to eat nor drink with their fellow-countrymen, and are excluded from participation in all public diversions. They become, in fact, outcasts of society, are not at liberty to marry, and are not even permitted to cook victuals for themselves, but must live by beggary; and food is handed to them over the giver's left shoulder; even their own wives and children look upon them with contempt. When they have succeeded, however, in taking the life of a Muhammadan, they are re-admitted to their rights as freemen, and become honorable men again.

These stringent and severe customs bear a striking resemblance to the warlike system of the Spartans, towards those who fled from a stricken field or survived a defeat, who were thereby deprived of their rights as freemen, and were subject to all sorts of indignity and contumely.* Herodotus also quotes a similar usage prevailing

* "Hence it is that a mother recommended to her son, who was going to make a campaign, that he should return either with or upon his shield: and that another, hearing that her son was killed in fighting for his country, answered,

amongst the Scythians. He says :—“ Once every year, the governor of a district, each in his own circuit, mingles a bowl of wine, from which those Scythians drink, by whom enemies have been captured : but they who have not achieved this, do not taste of the wine, but sit at a distance in dishonour ; this is accounted the greatest disgrace. Such of them as have killed very many men, having two cups at once, drink them together.”*

To escape from this disgrace as soon as possible, it may naturally be imagined, that these unsuccessful foragers lose no opportunity in going again to seek their enemies ; and that the young men require no stronger stimulant to urge them to the destruction of their natural foes. Those who, during their life-time have never volunteered to set out on one of these expeditions, or may never have had the opportunity of so doing, are not subjected to these rigorous rules, which only refer to those, who, of their own free will, have set out for the express purpose of making an inroad into the territories of their enemies, after the termination of the annual feast ; still, all who have not killed at least one Muhammadan during their lives, are not held in much esteem.

Notwithstanding the natural animosity of the Síáh-posh Káfirs towards the followers of the Prophet of Mekka, who constantly make inroads into their country for the purpose of capturing and carrying off slaves and cattle ; and, that the former lose no opportunity in making reprisals, and are constant in their endeavours to destroy them, as enjoined by their religion and ancient custom, as will have been seen from the preceding remarks : yet when a Musalmán throws

very coldly, “ I brought him into the world for no other end.” This temper of mind was general among the Lacedæmonians. After the famous battle of Leuctra, which was so fatal to the Spartans, the parents of those that died in the action congratulated one another upon it, and went to the temples to thank the gods that their children had done their duty ; whereas, the relations of those that survived the defeat were inconsolable. If any of the Spartans fled in the battle they were dishonoured and disgraced for ever. They were not only excluded from all posts and employments in the state, from all assemblies and public diversions, but it was reckoned scandalous to make any alliances with them by marriage ; and a thousand affronts and insults were publicly offered them with impunity.”

ROLLIN : ANCIENT HISTORY. Vol. I., pp. 236.

* HERODOTUS : BOOK IV. Melpomene. Chap. 66.

himself on the generosity, and places faith on the word, of a Káfir, he treats him in the most hospitable and generous manner. If one of the former people falls by chance into the hands of the Káfirs, when not on their yearly crusade, and says that he is a friend or acquaintance of a certain Káfir of a certain tribe, they release him; and even if such person happens to be accompanied by a second party, he has merely to say, "This man is my friend, and I am the friend of such and such a Káfir (mentioning his name) of a certain village," in order to obtain his companion's release also.

If a Sí'áh-posh and a Muhammadan wish to enter into a truce of friendship, as they sometimes do with the people of Badakhshán and Chitrál or Káshkár, but rarely with the more cruel and bigoted Afgháns, they exchange weapons, and until these are again returned, they remain at peace; but after they have been given up, the friendly intercourse ceases, and the fire of enmity burns as fiercely as before.

Another custom is to kill a goat and dress the heart, of which each of the contracting parties takes a portion, and afterwards salute each other; but this mode of agreement is not so binding as the former, which is considered sacred. This latter mode of making covenants with their enemies, is something similar to that described by Mr. Elphinstone in his work on the "Kingdom of Kábul."

The Káfirs follow a different practice in entering into agreements amongst themselves. These are made in the following manner. They take a piece of gold, or a golden ornament, and place it in a cup filled with water, and the terms of the compact or promise having been stated, each of the contracting parties drinks off a small quantity of the liquid, after which the agreement is binding. This form they designate *sún-wuruk* (سون ورك), or *sún-ao-wí* (سون اووي), *sún* being the term for gold, and *wuruk* or *ao-wí*, the name for water. Another method is to take a piece of salt which each party tastes, and the bargain is complete. This method, however, is observed amongst most eastern people.

Somewhat similar usages to the foregoing were prevalent amongst the Medes; and are mentioned by ROLLIN in the following words. "The manner these people had of contracting an alliance with one another is very remarkable. Besides other ceremonies, which they had in common with the Greeks, they had this in particular—the

two contracting parties made incisions in their own arms, and licked one another's blood."* HERODOTUS also describes an analogous custom of entering into engagements as observed amongst the Scythians. He states:—"The Scythians make solemn contracts in the following manner, with whomsoever they make them. Having poured wine into a large earthen vessel, they mingle it with blood taken from those who are entering into covenant, having struck with an awl or cut with a knife a small part of the body; then, having dipped a scimitar, some arrows, a hatchet, and a javelin in the vessel, when they have done this, they make many solemn prayers, and then both those who make the contract, and the most considerable of their attendants, drink up the mixture."†

If a young man falls in love with the daughter of any one, and wishes to marry her, he takes an arrow, which he has previously covered with blood, and discharges it into the house of his mistress's parents or guardians, as the case may be; but at the same time taking good care that the arrow injures no one. He then goes away to one of the chief men of the village and acquaints him of the circumstance. The girl's father, or master, if a slave, having discovered the arrow, makes enquiry amongst his neighbours if they know who has discharged it into his dwelling. On this, the confidant of the lover comes forward, and makes known the name of the party, and proposes to the tribe that the girl be given to him in marriage; and if they agree, which is generally the case, they fix the amount of dowry, consisting of cows, goats, sheep, land, and ornaments; and these must be made over to the damsel's parents, or master, by the intended bridegroom, on or before a certain day. If he has sufficient property of his own for his marriage expenses, it is well, otherwise the tribe raise a subscription amongst themselves, and set him up in the world.

The day for the celebration of the marriage having been fixed, the people of the village and the neighbouring hamlets are informed of the same, and invited to attend the festival. The father feasts the guests sumptuously for a period of from five to ten days according to his means, during which time singing and dancing are kept up

* ANCIENT HISTORY. Vol. I., pp. 146.

† HERODOTUS; BOOK IV. Melpomene. Chap. 70.

with great spirit, accompanied by a sort of tambourine and a pipe or fife. On these occasions the wine is not spared.

On the last day but one of the festival, the father gives his daughter whatever dowry his means will afford, and which generally consists of a suit or two of clothes, a few brass or silver ornaments, a few goats, some household utensils, and if his circumstances will permit, a cow or two. Rich fathers add one or more slaves.

On the last day of the bridal, the bride and bridegroom are decked out in their best apparel, and brought into the centre of the place where the guests are assembled together. A goat is then brought; the bride is placed at its head, and the bridegroom at the tail. One of the elders present, then rises up, and stands at the side of the goat, between the couple; and commences to relate the warlike and virtuous actions of their respective ancestors, and exhorts them to follow their example and live happily together. After he has concluded his address, he slaughters the goat, which he gives to a priest as his fee; and the bridegroom takes his bride away to his own home: and thus ends the marriage ceremony.

The age for marriage is from twenty to twenty-five for males, but mainly depends upon whether the person can afford to support a wife. The period of marriage for females varies from fifteen to twenty years of age, and even older. Polygamy is rare, although not considered unlawful; but it is only men, well off in the world, who can afford to purchase female slaves. Adultery also is of rare occurrence, and its punishment is divorce.

In some of their customs and ceremonies, the S'áh-posh tribes bear a strong resemblance to the Gabrs or Fire-Worshippers, known in India by the name of Pársís.

Within a short distance of every village, there is a building erected, and entirely set apart for the reception of females during certain periods, and also after child-birth, when they are considered impure.

On a female becoming aware of the first mentioned circumstance, she must at once retire to the building referred to; and clothes bedding, food, and such other things as she may require, are brought to her. After some days, she bathes, puts on clean clothes, and returns home.

In cases of child-birth, the parturient woman is removed as quickly

as possible after the signs of labour are apparent, to this general lying-in house, where she remains with her offspring for a period of forty days, during which time every thing she may require, is brought to her. After the expiration of the forty days, she performs her ablutions; puts on clean apparel; and returns home with her child.

During both the periods referred to, a female must on no account put her hand to any vessel used for food, or for drinking purposes. If she should do so, it must be destroyed: for her touch is considered pollution.

On the demise of any person, the females wail and beat their breasts, as is the custom throughout most eastern countries. A likeness or image of the deceased, whether male or female, is then made of wood, and as like the defunct as possible. Should he have been blind, or have lost an eye, the image is thus represented; and they even go so far in their imitation, that if the deceased had any marks or scars on his face or body, however minute, or any other peculiarity whatever, the same is portrayed on the wooden image. When this has been completed, the body being first arrayed in its best apparel, is placed in a wooden coffin, the lid of which is well fastened down; and is afterwards conveyed to the place of cemetery, situated about a quarter of a mile in front of each village, or as nearly opposite as possible. The women, weeping and wailing, precede the corpse, which is placed on a cot or sort of bier, and borne by four or six persons; the men at the same time follow chaunting the praises of the deceased. When the corpse is set down occasionally to relieve the bearers the men dance round it, at the same time continuing to chaunt in a low voice.

On reaching the burying-ground, the coffin is set down and left in the open air, and the procession returns home. After this, it is necessary that the relations of the deceased person should kill an ox or cow, according to the number of guests to be entertained, besides sheep and goats, and give a feast, at which the wine is not spared.

M. M. Hue and Gabet, in their interesting account of travels in Tartary and Thibet, mention the manner in which the nomadic tribes of the desert expose their dead. One mode bears a strong resemblance to the *Káfir* practice of exposing their dead bodies.

They say :—“The manner of interring the dead among the Tartars is not uniform. The Lamas are only called in to assist at extremely grand funerals. Towards the Great Wall, where the Mongols are mixed up with the Chinese, the custom of the latter in this particular, as in others, has insensibly prevailed. There the corpse is placed, after the Chinese fashion, in a coffin, and the coffin in a grave. In the desert, among the true nomadic tribes, the entire ceremony consists in conveying the dead to the tops of hills or the bottoms of ravines, there to be devoured by the birds and beasts of prey.”* Exposing the dead to ravenous animals is also prescribed by the precepts of the Mágí. The way in which the Gabrs or Pársís of the present day expose their dead in the Towers of Silence, is so generally known as not to require description.

In religious matters the Síáh-posh tribes appear to be exceedingly ignorant, and their few forms and ceremonies are idolatrous. They consist chiefly of sacrifices of cows and goats to their deities, whom they call Shurúyáh, Lámání, and Pándú, which latter, the name would lead us to suppose to be one and the same with the deity of the Hindú pantheon known under the name of Yudhishtira.

They have hereditary priests who assist at the different feasts and ceremonies, and who are supported by voluntary contributions, and a double share of victuals and wines at festivals. Their influence is very slight; and the elders and chief men of tribes appear to hold all authority.

Each village contains a temple or place of worship, differing but little from the dwellings of the people themselves, and in which the wooden representations of the three deities before mentioned are placed. The walls are generally ornamented with the antlers of deer.

Fire appears to be necessary in most of their religious ceremonies; and a Káfir has great antipathy to extinguish it by water, or even to blow out a flame with the breath;† yet they do not keep up the

* TRAVELS IN TARTARY AND THIBET (Illustrated London Library) Vol. I. pp. 77.

† LIEUT. WOOD remarks as follows of the inhabitants of Badakhshán. “I have elsewhere mentioned the repugnance with which a Badakshee blows out a light. Similar lingering remnants of Zoroaster's creed are to be detected here

sacred fire like the followers of Zartúsht, and do not even seem to know anything concerning it. At the same time, a number of their usages bear great resemblance to those of the Gabrs, of whom they are probably an off-shoot, but whose characteristics have gradually declined during the many centuries they have been separated from the parent stock. The Badakhshánís and others, inhabiting the surrounding countries, are probably descended from the same race.

The Mágíán religion was not exclusively confined to Media, but extended to the east to Bakhtra, (in which the royal residence was first situated,) and as far as the stupendous mountains of the Indian Caucasus and the valley of the Oxus, the whole of which extensive tracts of country—where numerous ruins attributed to the Gabrs still exist—were included in the mighty empire of the Medes. It is also evident from the Zendavesta, that it was in these regions the religion of Sápétman Zoroaster “first took root and flourished, and thus it became the parent land of the civil institutions of the Medes.”*

Several authors claim for the Síáh-posh tribes Hellenic ancestry, but on what grounds does not appear. They themselves do not put forth a claim to such illustrious descent; but they pride themselves on being brothers of the Farangí, and according to the traditions preserved among them, they affirm, that coeval with the spread of Islámism, they occupied the countries to the south of their present location, and have been subsequently compelled to seek for liberty and for safety, among the mountains and valleys of the Hindú Kush, from the insupportable tyranny of their Muhammadan neighbours whom they designate *Awdál*. They appear, therefore, unquestionably to be the remnant of the aboriginal inhabitants of the country to the south of the Kábul river and central Afghánistán as at present constituted. This is confirmed by the traditions of the Afgháns also; from the existing histories in the Pus’hto or Afghán language;

(Wakhan.) A Wakhani considers it bad luck to blow out a light by the breath, and will rather wave his hand for several minutes under the flame of his pine-slip, than resort to the sure, but to him, disagreeable alternative.” JOURNEY TO THE OXUS.

* HEEREN: “ASIATIC NATIONS.” Vol. I. pp. 149.

and from the writings of other Muhammadan historians.* From these we find, that in the time of the Ghazníwid Sultáns, the Afghán tribes finding the Káseghar district—situated immediately west of, and including within it the slopes of the Sulímán mountains, forming the western barrier of the Indus, in which they had for centuries past been located—much too contracted to yield a subsistence to such a numerous people as they had now become, were compelled to encroach upon the territory to the west and north-east, towards the Kábul river; and were in the constant habit of plundering the infidels, or Káfirs, as they called the original inhabitants of the country, making slaves of them and of their wives and children; and compelling all those who did not seek safety in flight, to become converts to Islámism. These events took place during the chieftain-ship of Malik Abdál, from whom the whole of the Afghán tribes are often called Abdálís, or, by substituting the letter *w* for *b*—a change common in the Pus'hto and Iráníán languages—Awdálís, hence the name given them by the Si'áh-posh as already related.†

The people of Chitrál and Káshkár, and according to Wood, the chiefs of the tribes of Roshán and Shaghnán—two mountain districts lying in the valley of the Oxus, immediately to the north of Durwáz—claim lineage from the Macedonian conqueror himself. But until these countries shall have been explored by some intelligent European traveller, we cannot arrive at any certainty on this head.‡

Akhúnd Darwezah, the venerated saint of the Afgháns, and opponent of Báyzid Ansári, founder of the Roshánián sect, traces his

* See Introduction to my PUS'HTO GRAMMAR, (second Edition): Hertford, 1859, and JOURNAL OF ASIATIC SOCIETY OF BENGAL. Vol. XXIII. pp. 550.

† This is also confirmed by the account of Malik Manir quoted by MASSON in his "TRAVELS." "He says; In company with Malik Sir Buland of Chaghan-serae, I went to the Kafir town of Kattar. The Kafirs themselves call the Muhammadans *Odal*, and say that they have driven them to the hills, usurping the plains, and eating up their rice." Vol. I. pp. 233.

‡ "The chief of Wakhan traced his ancestry to Alexander the Great, a descent, whether fabulous or true, of which he is not a little vain. Muhammad Rahim considered his illustrious lineage a fact which none dare dispute, and indeed his neighbours spoke with equal confidence of his high claim. This honor, as other travellers have remarked, is not confined to Wakhan, but is one to which the rulers of Badakhshán, Darwaz, and Chitrál are also aspirants." "WOOD'S JOURNEY TO THE OXUS."

descent from the ancient kings of this region, who claim Macedonian origin.

The safest mode of entering the Káfir country, is to get one of them beforehand to become security, after which a person may go from one end of it to the other without the slightest danger. For a European, the best and safest route, I should say—and the one I myself would not hesitate to follow—would be by way of Gilgitt to upper Káshkár or Chitrál. In penetrating into Káfiristán from the south, the greatest, and I may say, the sole danger, is from the Yúsufzí Afgháns, whose territory of Panjkorah must be passed through; although, with slight trouble, and a little negociation with the chief, Ghazan Khán, I dare say this obstacle might be soon surmounted by a European acquainted with the Pus'hto and Persian languages.

When foreigners enter the territory of the S'áh-posh tribes, they are treated with great kindness and hospitality; but they try by every means to induce strangers to remain, and even offer them their daughters in marriage as an inducement. If a man once allies himself to one of their females, it is extremely difficult to get away again. Their boasting that the Farangí are their brothers, would appear a sufficient guarantee for the safety and kind treatment of any European who may penetrate into their secluded valleys.

The Káfirs have European features and a highly intellectual cast of countenance. They have both blue and dark eyes, arched eyebrows, long eyelashes, and broad open foreheads. Their hair varies in colour from black to lightish brown; and both males and females are tall and well made, and of handsome figure. Some of the females are said to be particularly beautiful. They all go about unveiled.*

* LIEUT. WOOD thus describes a Káfir that he met with in Badakhshan. "He was an uncommonly handsome man, of about twenty-five years of age, with an open forehead, blue eyes, and bushy arched eyebrows, his hair and whiskers black, and his figure well set and active. Crossed legged he could not sit, for in this respect the Káfirs differ from all eastern nations, and like Europeans prefer a chair or anything raised to a seat on the ground. He gave us an animated account of his countrymen, and pressed us to visit them when the passes opened. As an inducement to do so, he promised us plenty of honey and oceans of wine." "JOURNEY TO THE OXUS."

In summing up the character of this unsophisticated and highly interesting race, I may remark that they appear by all accounts, and even from the descriptions of their enemies, to be of a merry and sociable disposition ; and though quick to anger are as easily appeased. Hospitable to a fault, they treat their guests more kindly than brothers. Even their enemies allow that they are as sincere in their friendship as in their enmity ; are faithful to their agreements ; and hold boasting, lying, and duplicity, in sovereign contempt.

Lieut. Wood, in the interesting work, "A JOURNEY TO THE OXUS,"—to which I have already several times referred—remarks concerning them (in which I most cordially agree) that, "They resemble Europeans in being possessed of great intelligence, and from all I have seen or heard of them, I consider they offer a fairer field for missionary exertion than is to be found any where else on the continent of Asia. They pride themselves on being, to use their own words, brothers of the Farangís ; and this opinion of itself, may hereafter smooth the road for the zealous pioneers of the Gospel."

Fortunate indeed will be that man who has the opportunity of first exploring these regions ; and still more so he, who is destined to disperse the dark clouds of idolatry which now hang over them, by the bright light of Christianity.

*Account of Pergunnah Mahoba, Zillah Humeerpore, Bundelcund.—**By G. H. FREELING, Esq., B. C. S.*

The re-settlement of Mahoba having become necessary by the expiration of the old leases, it was accomplished during the cold weather of 1855-56, and a report submitted for the sanction of Government, of which the annexed paper is an extract, comprising all those portions relative to the former history, topography, and products of the pergunnah, but omitting all the Fiscal review, bases of assessment and classification of soils, which naturally formed the most important part of the report itself, but which seem rather to belong to the revenue record of the province than to be suited to the pages of this journal. Want of leisure has prevented the matter being put in a more popular shape, and must excuse the somewhat formal paragraphs into which its official character necessarily compressed each head.

Introduction.

Mahoba Proper is situated to the South of the Humeerpore district, distant from the Sudder Station 55 miles, and from the Cantonnments of Banda and Nowgong, 36 and 34 miles respectively. The Pergunnah is bounded on the North by Jelalpore of Humeerpore and Kundeh of Banda; on the East by Banda, and the Native States of Gouriari and Chirkharee; to the South by the Chutturpore territory and the Oormel Nuddee; and to the West by another portion of Chirkharee and the Pergunnahs of Jeitpore and Punwaree.

In former days, Mahoba played a very important part in the history of India, and its princes held sway over a large portion of the Peninsula. The works of old poets abound with legends of the heroes to whom it gave birth, and for many generations before the Muhammadan conquest, the different races of Thakoors, who held their court there, were among the most celebrated of that warlike period. To trace them through all their changes would, in such a report, be out of place; but it may be interesting to notice briefly, from a comparison of the different papers which have been published on the subject, the principal mutations which have at length reduced the capital of the Chandels to a British Pergunnah.

King Rug.

The inhabitants talk a great deal of a King Rug, of whom all they know is, that he reigned in the days to which their earliest traditions refer; of him, however, I find no authentic history, so proceed at once to the Chandels, who, according to Major Ellis, are descendants of Chandra Brahma, (perhaps the same as Chaudrama the "Moou,") whose mother, Hemavati, erected as penitential monuments the temples at Kujraha in Chutturpore, about Sumbut 682. Twenty-one of his descendants followed consecutively, and were the founders of most of the great buildings in Bundelcund, and have perpetuated their names by the lakes and reservoirs built by and called after them.

Pamál Deva, the 22nd in descent from the founder, and the last of any note, gravely insulted the Chouhan King of Delhi, Prethee Raj, and was slain by him in battle at Bairagarh, near Orai, about Sumbut 1247. His son Brimaditya met also with defeat and loss from the same monarch; the Chandels left their ancestral lands, and emigrated to Mirzapore, Azimgurh and elsewhere to the East.

The Banafers.

The Banafers also, whose origin Elliot refers to Mahoba, acquired great celebrity at the time, from the valor of Ala and Oodul, in the contests with the Delhi army. Many are still to be found in the Pergunnah and in the neighbouring one of Puuwaree.

The Chouhans.

After the final defeat of Brimaditya, Chouhan garrisons occupied the country, but on the Muhammadan invasion of India, by Mahmood of Ghuzni, and the fall of Delhi, Mahoba, with other Hindu States, became also tributary to the conquering power.

Muhammadan Rule.

From this time to that of the Boondelas, little is known of the state of this part of the Empire. Its greatness had departed, and it had sunk into a dependant province. Legends, however, are not wanting among the people, of the presence of their monarchs in person among them, especially of the powerful Ala Eddin Ghori.

The Boondelas.

The glory, however, of Bundelcund, as it now came to be termed,

was destined again, in some degree, to revive, in the persons of the Boondelas, a Rajpoot tribe of spurious descent, a branch of the royal race of Guhurwars of Casee.

The accounts of their rise are various; Franklin assigning it to the time of Timour, when the tribe under Dewada Bir are said to have established themselves in Mhow; while Elliot refers them to a somewhat earlier period, the beginning of the 13th century, when, "after the Chandels had been humiliated by the Chouhans, and they, in their turn, had been compelled to yield to the supremacy of the Musulmans, the country round Mahoba, must have been in so distracted a state, as to have invited the attack of the first Chieftain who could muster a band of followers sufficiently strong to maintain their occupation.

For the first two or three centuries of their rule, they were at times independent, at times nominally acknowledging the Muhammadan authority, until, in A. D. 1640, Pabár Sing was installed and confirmed by the Emperor Shah Jehan in all the possessions of his ancestors.

About this time, Champat Rao, a Chief of some note, settled at Mhow, and made himself notorious by his predatory exploits. His son, Chuttur Sal, who had been absent in the wars of the Deccan, and also in the Mahratta service, returning, settled at Punna, overthrew the neighbouring chieftains, seized their territories, and rendered himself so powerful, that Ahmed Khan Bungesh, of Furruckabad, was sent with a large force to reduce him to obedience. In the face of this overwhelming army, he applied for aid to the Peishwa, Sivajee Bajee Rao, and with his aid defeated the imperial troops, and made himself supreme in Bundelcund. Fearing, however, the increasing power of the Mahrattas, he, at his death in 1731 A. D., bequeathed one-third of his possessions to his powerful ally in hopes that, by that means, he might secure the rest to his children: in this share Mahoba was included.

Mahratta Government.

Mahoba having passed as an integral part of Saugor, and Jalown, to the Mahrattas, notwithstanding the attempted resistance of Bridaya Sah, and Jugat Raj, the sons of Chuttur Sal, which was repressed by Holkar, an officer of his army, by name Casi Pundit, was

entrusted with the Government. His son, Gobind Rao, succeeded; but being slain in conveying supplies to the Mahratta army, during the Abdallee invasion, the management of the province was confirmed to his family, and his sons, Balajee and Gungadhur, conjointly succeeded. At their death, the elder branch took Saugor, and Gobind Rao Pundit, known as the Nana Sahib, became sole master of Jalown, including Mahoba. He, dying in 1879 Sumbut, left a son Bala Rao, who following his father in 1888, left no heir. His widow, however, was permitted by the British Government to adopt any one she pleased, and her devise fell on her own brother, Gobind Rao.

This was very displeasing to several relations of the late Chief, and internal discord was the consequence. The Exchequer became embarrassed, and the possessions were mortgaged, piece-meal, to greedy farmers, who tyrannized over their peasantry.

British Interference.

To put an end to this, the agent to the Governor-General made a report in June, 1838, which resulted in the temporary sequestration of the district of Jalown, which was placed under Lieut. R. Doolan to be managed for the young Chief's benefit, during his minority.

Final Annexation.

On the 11th October, 1840, Gobind Rao died at Banda, not yet 17 years of age, and there being no direct heir, the order of annexation followed shortly after, and the superintendent appointed two years before in the name of the young ruler, was confirmed on behalf of Government—the administration of the Province being regulated, so as to resemble that previously introduced into Saugor.

Capt. Ross succeeded in 1842, and Capt. Erskine in 1848, under whose management it was, when, in May 1853, Mahoba with Jeitpore was transferred to Humeerpore in exchange for the Pergunnahs of Koonch and Calpee.

Physical Geography.

The general aspect of Mahoba is very unlike that of most parts of these Provinces, though the same as the neighbouring district of Banda, and great part of independent Bundelcund. A spur of the great Vindhya range extends its extreme point in this direction,

causing ridges varying from a single rock to hills of several hundred feet in height, to rise in all directions out of the plain of black land, which seems the natural face of the country.

The rock so appearing is, in all instances, primary:—granite traversed in many places by veins of quartz running North and South. This is of all degrees of coarseness—in some places of the finest grain—in others so loosely held together by the feldspar as to decompose, giving character to the surrounding soil. That a little harder, affords, on the side exposed to the weather, a convex surface in general; and in other places, from the suppression of the mica, quartz, or horn-blende, it assumes the character of syenite green stone, and clink stone, the green stone being particularly abundant about Mahoba Khass.

Soils.

The soils of Bundelcund have been so fully described by Messrs. Allen, Muir and Edgeworth, that I can only give a resumé of what they have already written.

The chief varieties, here as elsewhere, are Mar, Kabur, Pundooah (called in Humeerpore, Purwah and Parooah) and Rakur.

Mar is a rich black soil, occurring generally in plains of many hundred biggahs in extent, said by Dr. Adam to contain more argillaceous earth and carbonized vegetable remains than is found in lands to the North of the Jumna. It is peculiar for its power of retaining moisture, and the rifts and cracks, which its contraction through drought causes. In the rains, it forms a mire of so clayey a nature, as to render roads made through it impassable. It is hence reserved exclusively for rubbee crops; wheat, gram, and *âl* being the principal.

Kabur is very similar to Mar, but lighter both in character and colour. The crops on it are not so good, gram being the favourite. It is not much sought after by cultivators; it bears high rates, and is very uncertain; an excess, or want of rain being equally injurious.

Pundooah is a light earth of a yellow brown colour, very favourable for cotton and almost exclusively used for sugar-cane in consequence of its fitness for irrigation.

Of *Rakur* there are two kinds, termed “motee” and “patree.” Of the former more will be said when treating of rates, as it does

not appear to be a separate soil; the latter is the poorest of all soils, and as its name denotes, is hard and stony. When the rains are favourable, it gives good khnreef crops, but any lack of moisture causes a failure. Its power is soon exhausted, and it requires to lie fallow, and recover itself after every two or three years.

Khera and *Kachar* are classes of soil, deriving their names rather from position and circumstance, than from being in themselves different.

Khera is that land, generally near the village, which is manured and irrigated from wells, it may be of many species and often is *rakur*. The treatment it receives, however, makes it fertile and the garden cultivation takes place in it, in which case it is termed "*kachwara*."

Kachar is the land in the vicinity of streams, or overflowed by lakes in the rains. It is generally rich, and of necessity confined to rubbee crops.

Lakes.

One of the great peculiarities of this Pergunnah is its lakes or tanks, which are to be found in the neighbourhood of most of the villages. They, in general, date back to the time of the Chandels, and in many instances the names of the founders have been preserved, as in Mudnn Saugor and Keernt Saugor at Mahoba itself, made by Mudnn Brahma and Keernt Singh, the father and grandfather of that Parmal Deva, of whom mention was made before.

They generally are faced with rough stones of large size, arranged so as to form steps, with ghâts of coarse white granite in immense slabs; above which, in many instances are the remains more or less perfect of temples of the same material. Lientenant Burgess is of opinion, that they were in former days, used exclusively for irrigation, and the remains of bunds, now broken, in regular succession on the line of stream through the Pergunnah, would seem to confirm the notion. The largest is Beejannngger, near Mahoba, which is nearly two miles long, and a very fine sheet of water, lately made available for irrigation.

Streams.

Rivers, there are none in the Pergunnah, though several of the streams rising in the hills become considerable ere discharging

themselves into the adjacent large rivers, the Kane and Betwa. Thus the Chundrawn Nuddee, which forms an important addition to the Kane shortly before it reaches the Jumna, rises near Mahoba; and the Oormul Nuddee, another tributary of the same stream, is the Southern boundary of part of the Pergunnah. The Kane likewise has its springs here, as also the Urjoon which joins the Burna, and with it the Betwa below Jellalpur. In every instance save the last mentioned, the current is to the Eastward; and all but one dry up after the rains are over, the Oormel alone retaining water in its hollows.

Irrigation.

As in the regulation Pergunnah so here, irrigation as a general means of increasing the fertility of the soil is unknown, which may be ascribed partly to the abundance of land compared with the number of cultivators partly to the fact, that so much of the soil is unfavourable to the practice. In but one instance, viz. at Naigaon, have I seen the "doogla," so universal in the Doab, used here. In some instances, land situated below tanks is watered from them, by cuts being made in the bund; or, when the proximity of lakes ensures the water being close to the surface, kutchu wells are dug, at a cost varying from 1 to 10 or 12 Rupees, which last one hot season, and fall in at the beginning of the first rains.

In some few villages also where *Pundooah* is the prevalent soil, and sugar-cane much cultivated, these are more abundant, especially towards the south; but the practice is by no means general.

Latterly, irrigation has received a great impulse from the efforts of Lieutenant Burgess; who, by constructing extensive works at the Bejannugger Lake, and raising the bunds and escapes of several of the neighbouring ones, has caused a large quantity of land, previously waste, to be brought under the plough, much too producing the more valuable crops.

Products.

The tabular statement in appendix No. 1, shows the quantity of land under each kind of crop, as furnished by the Khushreh survey; and appendix No. 2, gives the principal exports and imports, which are treated of more fully under the heading "Trade." From the former, it appears that the chief product of

the khureef or summer harvest is "jowar," which occupies nearly a third of the whole area cultivated; while, contrary to what is the case generally, "bajra" finds little favour: cotton stands next, and then "sesame" and "kodo." In the "rubbee" or winter harvest, wheat occupies more than half the whole cultivation, and among the others "pulse" (unkhud) stands foremost, and barley, while "ál" also takes a very fair rank.

There are but two species of cultivation on which I would particularly remark,—*sugar* and *pawn*.

The former is grown very extensively throughout the Pergunnah, and is a favourite crop wherever the *pundooah* soil predominates, and water is either available from tanks, or near enough the surface for wells to be dug at little expense (they cost ordinarily from 1 to 9 or 10 Rupees, and last sometimes one, sometimes two years, according to the rains). The sugar produced is generally inferior, owing to the poor cane sown. Instead of choosing the best for seed, any, the most valueless is used.

The peculiarity of this cultivation, however, is, where there is no water obtainable, the want is artificially supplied by what is termed "pulwar." After the cane is planted, the whole surface of the field is covered over, to the depth of three to six inches, with leaves, grass and straw, which retains all the moisture the ground receives from dew or showers, indeed acts as a species of hot bed; and the sugar so produced seems equal to any other. This mode of cultivation is, it seems, proper to Bundelcund.

After writing the above Mr. C. Jackson informed me that this mode of raising sugar is also prevalent in the Agra district.

The *pawn* gardens (bareja) of Mahoba are well known all over the provinces, and the leaves form a large item of export to the Doab, up to Delhi and Agra; indeed sepoy's tell me that, in the Punjab war, the Mahoba pawn was even there in great request. It has been grown from time immemorial, the soil, tanks, &c. being especially suited to it. The great requisite is an abundant supply of water, and this the lakes of course afford. The cultivation is conducted by a caste termed "Burai," and the export trade and sale by another, called "Tambowlee." There are three localities in the Pergunnah where it is carried on, Mahoba Khass, Didioara and Baregurh.

The plant is a creeper, resembling the convolvulus, but, they say produces no visible flowers or seed, (this may be because it is a perennial, rooted up after the first year) it is propagated by cutting off the upper part, where the leaves are too tender for sale, and every slip from joint to joint takes. The land is carefully prepared, and oil cakes, of the husks and stalks of the tillee, used as manure.

In "Phagoon" and "Bysagh," the cuttings are planted at a distance of three or four inches apart, in straight lines termed "cor," along light bamboo frames six feet high, allowing a passage between them of about two feet broad. The top and sides of the gardens are protected from the sun by screens of grass interwoven with bamboos, and give the whole a most curious appearance from without, especially as the doors are of the same material, and very small, so as to be scarcely discernible.

In the height of the hot winds every line requires careful watering, from earthen pots, four to eight times a day according to the heat; but after the rains once every three or four days is sufficient and the leaves are then plucked throughout the cold weather beginning at the bottom and largest ones. Each plant, on an average furnishes twenty leaves; or one "dolly" of two hundred leaves (the measure they are sold by) is ordinarily produced from ten plants. The price of these dollies varies by quality; those of mixed large and small leaves, fetch from one to three annas in ordinary seasons, while the superior ones, all of first quality, rise to six and seven annas at the gardens.

The land is generally given on "thausa" leases, at from ten to twenty rupees a beegah, but occasionally, as this year in Didwara, the cultivators refuse, and prefer paying per line of one hundred feet.

Singhara.

The tanks throughout the Pergunnah, are naturally, most favourable to this crop, which is exclusively cultivated by men of the Dheemur caste, and is to be found in most villages. In the end of January, the seed or fruit is scattered, at the rate of a maund to a local beegah, over the water where it is sufficiently deep to preclude any idea of its drying up before the rains. It is then pressed into the mud by sticks, or the feet (very deep water being

therefore never used), and in a month begins to sprout. In June, just before the rains set in, the excess is thinned out and transplanted, the produce of one beegah serving for three or four; the roots being taken between the Dheemur's toes, in a curious manner, and thus fixed in the mud. The leaves appear on the surface of the water, beneath which in October the fruit forms, and is gathered in November and December.

The produce sells commonly at from ten to twenty seers per Sreenugger rupee, and a local beegah produces from three to four maunds. The measure is by bamboos 18 feet long, twelve by two forming the singharra beegah, which pays from one to three rupees rent, the nature of the soil telling in this as in other crops; a stony bottom being very unfavourable. The community of Dheemurs, however, generally take the lake on a "thausah" lease, and divide it among themselves, their respective cultivations being marked by upright sticks, the removal of which as of boundary marks on shore, leads to many a quarrel.

Their great enemy is an insect called "baudu," which, in both stages, of grub and fly, feeds on the plant, eating through the husks, and thus destroying the fruit, which on being exposed to the water, spoils. The labour of killing these and clearing away weeds, is very great.

For the cultivation flat bottomed canoes are used, scooped out of the trunk of a single mohwa tree, costing about five rupees each to make, and lasting fifteen to twenty years. They carry two men, and are pushed on by bamboos; and when not used are sunk in the water till again wanted.

Castor plant.

The castor plant (*Ricinus vulgaris*) so very common about Humeerpore and its neighbourhood, is scarcely known here; it is occasionally grown by kachees in little patches; but in only one village, "Karee Pucharee," have I seen a field of it.

Gardens.

Garden cultivation is frequently to be met with, but is by no means universal. Pepper and vegetables are grown, but by far the most common crop is tobacco, of which large quantities are produced in the northern part of the Pergunnah.

Grass and Hay.

The absence of any large Military station from the neighbourhood, and the large tracts of uncultivated land and hills about, obviate the necessity of setting aside any fields especially for hay. The inhabitants of every village are allowed by the zemindars to cut the grass they want, but “rakhels” in the strict sense of the word, are not met with. The village of Futtehpore is perhaps an exception; the land not being good and adjoining Mahoba Proper, the owners find their advantage in selling the hay, but this is the only instance where any profit seems derived from this source.

The “Kaus” grass (*Saccharum spontaneum*) prevails here as elsewhere in Bundelcund, and in some villages, especially those on the borders of Banda, is a grievous enemy to the husbandman. It rears its wiry head in the midst of the rising crops, and when once established, is nearly impossible to eradicate. Indeed Mr. Edgeworth (learned in all plants and their habits) declares that the very attempt to remove it by disturbing the earth round its roots only gives them new strength.

The presence of this weed is a certain sign of good land, as it only flourishes in the best black soil. There is one village Bela, which, possessing as fine land as any in Mahoba, has of late years been quite overrun by Kaus, and does not return one-fourth of its former produce. Mr. Cust of Banda has proposed treating any village where it appears as a case of alluvion and diluvion, and in the justice of his scheme, I fully concur.

Forest Trees.

Jungle must formerly have abounded throughout the Pergunnah, in many of the border villages much even now remains: generally a low brushwood, of which the wild “corinda” and “khyr” tree are the most common elements. The “Chool” bush is also very prevalent, and is a valuable addition, being useful in all its parts. The leaves are used for dishes, at weddings, feasts, &c. by all castes; the fibres of the roots form a rope which does not swell or spoil in the rains, water improving and strengthening rather than injuring it, and from its charcoal the best native gunpowder is prepared.

Groves are very plentiful and invariably of the molwa tree

(*Bassia latifolia*) which furnishes the native spirit sold in the bazars; the mangoe, as is usual this side of the Jumna, being of very rare occurrence. The former governments greatly encouraged planting all kinds of trees, granting patches of land rent-free for the purpose to any one who would take them.

Animals.

The gradual clearing away of jungle, and increase of cultivation have naturally thinned the number of the larger beasts of prey in Mahoba; wolves and hyenas are still, however, found in some quantity, as the annexed list of rewards given by Government during the last twelve months for their destruction will show. Those killed in Jeitpore are included, and I doubt not many have been brought away from the Independent Territory close by; but it proves the existence of a considerable number still in the neighbourhood. Leopards are occasionally brought in, and rumours of tigers are sometimes spread, but I have never heard of one being actually killed in the Pergunnah. In the year 1855 head money was paid for 16 leopards, 415 wolves, and 239 hyenas, amounting to Company's Rupees 1,781. Wild pigs find cover in the hills, and occasionally commit much damage to the cultivation. Antelope also are numerous, while the tanks and lakes furnish every species of wild fowl to the sportsman.

Roads.

The great road, leading from the Doab to Saugor, and Central India, passes through Mahoba; a branch from Humeerpore joins the main line from Banda at Kubrai, whence it traverses the Pergunnah till it crosses the Oormul Nuddee into the Chutterpore territory at Kaimaha; at Sreenugger it turns off to the cantonments at Nowgong; and from Mahoba Proper there are also roads to Soopa, Chirkharee and Bareegurh, which are annually repaired. When His Honor the Lieutenant Governor was at Banda last year, it was proposed that the road from thence to Nowgong should be metalled and the matter is now under consideration. I have therefore drawn up a tabular statement of the traffic which passed along it last year (Appendix No. II.) from monthly returns of the road chowkies at Jhur Kaimaha, from which the number of each species of conveyance can be seen at a glance. The returns from the East-

ward are probably correct enough, but as the Nowgong road turns off before reaching Kaimalia, those from the Westward omit all the traffic to and from the cantonments and their neighbourhood.

The road in question is a most important one, but is never in good order, except just after the annual repairs; it is much intersected with "nullahs," and in the rains is quite impassable; that it would be an expensive undertaking I believe, but as it passes through very little *mar* soil, and *kunkur* is to be met with along its course, I do not think it would be so much so, as most other lines of communication in Bundelcund, while in importance it yields to none.

Trade.

From the abovementioned statements, it appears that the chief exports from Mahoba towards the East are pawn, cotton and ghee, in return for which are received grain of all kinds, sugar and cloth; while from the West, iron and kodo are imported in exchange for cotton. Grain, gram, tobacco, sugar and cloth, likewise pass in large quantities towards Chutterpore, from whence pawn, soap, ghee, salt, saltpetre, and iron are furnished for Banda and Humeerpore consumption.

Markets.

Markets here seem only to be held in five or six of the larger villages, and in them but once a week; Kubrai alone having two market days, Saturday and Tuesday. In Mahoba Proper, on Saturday, and in Sreenugger, on Monday, there is a fair show of goods, and local bazars are held at Bareegurh and Bilbai on Fridays. Several Melas assemble in the year at different holy places of resort, but they are all for religious and not for commercial purposes.

Towns.

The three residences of the Amils and Talookas of former days are naturally still the places of most consequence in the Pergunnah, and those containing the largest number of inhabitants. Mahoba itself with the adjacent villages of Dhnreeba and Bhuttepura has a population of 7,846, and is the head-quarters of an Assistant Magistrate and his office. The Tehsildaree and Thanah are also here.

The numerous ruins of temples and dwellings, built of curiously cut granite, attest the greatness and wealth of its kings in former days; but long after their decay, it was made a place of importance by a large colony of "Brinjarees" or grain merchants settling here. They created as it were a new village to the East of the old town, erecting substantial stone houses, many of which are still in such good order as to show how recent their occupation was. There is nothing wonderful in their choosing this spot, situated as it is on one of the great roads to Central India, as the centre of their operations; but their sudden disappearance from the scene cannot fail to create surprise. Mr. Balfour, however, writing of these people in the Asiatic Society's Journal for January, 1844, gives a reason, which may in this matter be accepted as the true explanation. He states that they originally came from Rajpootana, carrying on traffic as grain merchants by laden bullocks, welcome everywhere in seasons of scarcity, supplying armies in war, and respected by both parties, each being equally interested in their safety. A time of hostility or dearth was a period of activity to them, and they rejoiced in the troublous times that enabled them, and them alone, to accumulate wealth in safety; but our success restored peace to India; the troops remain quiet in cantonments, cultivation is uninterrupted, and the occupation of the Brinjarees gone. When disease swept away their bullocks, the community being too impoverished to purchase others, broke up and dispersed.

Sreenuggur is chiefly known as the Mint from which issued the Sreenuggur Rupees, the general, and until the last settlement, the exclusive currency throughout this part of Buudelcund. Previously the Government Revenue was paid in the local coin, but since this has been forbidden, the circulation of the Company's Rupees has gradually increased, and in many villages they have become the medium of account. The town itself contains 5,447 inhabitants, is overlooked by the remains of a Fort now in ruins, and is the residence of several of the few monied men in the Pergunnah.

Kubrai has nothing remarkable about it, save as possessing a large market. The village in itself is not very large but Bughwa, Gouharee and Morheepoora, which with it form one town, raise its population to 4,032 souls.

Population.

The census of the Pergunnah made in the autumn of 1855 gives the following return—

Men.	Women.	Boys.	Girls.	Total.
22,626	20,347	13,267	9,147	65,387

spread over ninety-one villages, of which the three above described are the largest. Besides them, but three, Jeouraha, Baregurh and Bilbai, have above 2,000, and nine others above 1,000 inhabitants.

The recency of the previous census renders any comparison with it useless, and none of earlier date appear to have been made. This is the more to be regretted, as in some villages the disproportion between males and females, especially among the children, is so great as to raise doubts whether infanticide is not yet more common here than is believed to be the case, and I have therefore added the statement in Appendix No. III., and have included in it the different classes of zemindars who own the villages.

Castes.

There are men of all castes to be found in the Pergunnah, but the greater number are naturally Rajpoots of different races, the most frequent perhaps being the Beis Thakoors, who especially abound to the North. Oorwara, a large village to the South-west, is the only one where a large brotherhood of Chandels still remain.

Education.

Education here is at a low ebb, in many villages, the Putwaree is the only scholar ; but this throughout Bundelcund is too commonly the case. In Oorwara, Sijharee, Sreenuggur, Puhra, and Mukurbai, however, the children of the kaieths, bunyas, bráhmans, and thakoors, read at home, and learn the rudiments of Hindee and accounts. Chikehra boasts a school at Pershad Tewaree's, as does Kubrai. Mahoba has two ; from ten to fifteen boys attend, paying from three to four annas a month each. Besides this, wandering teachers at times visit the large villages and remain as long as the zemindars support them, in return imparting such instruction to the children as they are able.

APPENDIX No. I.

Comparative table, shewing the amount of land in survey Beegahs under the different kinds of crops of the principal species.

<i>Khareef or Summer Crop.</i>		<i>Rubbee or Winter Crop.</i>	
Jowar,	46,526	Wheat,	44,701
Cotton,	38,959	Pulse (Nukhúd),	9,934
Kodo,	23,436	Barley,	7,729
Sesame,	23,153	Al,	4,478
Sugar,	1,916	Linseed,	1,269
Bájra,	1,769	Vegetables and other	
Sámah,	840	garden produce,	271
Indigo,	570	Pawn,	164
Vetch (Másh),	351	Tobacco,	138
Rice,	270	Pulse (Munsoor),	104
Kákoon,	192	Safflower,	96
Vegetables and other		Urhur (Pulse),	68
garden produce,	190		
Hemp,	184		
Tobacco,	150		
Pawn,	25		

Traffic and Exports from Mahoba towards the Eastward, or Humeerpore and Banda.

	Unladen.	Wheat.	Barley.	Bajra.	Jowar.	Gram.	Rice.	Tilkee.	Kodo.	Dhal of sorts.	Soap.	Tobacco.	Fruit and vege- tables.	Molva and Wine.	Pawn.	Cotton and Cot- ton Seed.	Pedlary, &c.	Ganja, Bhung, &c.	Ghee.	Leather.	Salt and Saltpetre.	Iron.	Specie.	Sugar and Saccha- rine produce.	Cloth.	Household stuff.	With men.	Miscellaneous.	Total.
Carts,	6,629	3	5	0	0	8	0	909	1	0	36	4	214	72	121	3,365	0	2	75	37	45	293	6	75	2	125	1,019	154	13,193
Covered ditto,	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	162
Bullocks,	8,946	1	0	0	0	0	0	810	4	15	27	2	450	21	2	328	5	3	264	25	7,431	585	91	4	12	245	0	107	19,394
Buffaloes, ...	233	9	0	0	0	0	0	230	4	1	0	0	23	2	93	3	0	2	27	1	27	90	0	0	0	0	0	4	756
Ponies,	155	0	0	0	0	0	0	5	3	2	4	0	8	0	67	0	65	0	155	53	13	3	31	3	14	89	8,511	88	9,232
Camels,	82	11	0	0	0	0	0	0	0	0	15	0	6	0	3	0	9	1	0	0	0	0	3	0	4	69	24	10	237
Asses,	45	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	6	0	0	0	0	0	0	0	1	0	0	49
Total, ..	16,052	21	5	0	0	8	0	1,954	12	18	82	6	706	98	294	3,696	79	8	521	116	7,519	971	131	82	32	529	9,717	363	43,023

Traffic and Exports from Mahoba to the Westward or Chutterpore.

Carts,	1,979	1,678	58	14	14	167	15	4	2	73	1	91	26	0	0	76	1	3	0	0	15	2	2	77	32	25	1,884	69	6,308		
Covered ditto,	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	191	0	228
Bullocks,	5,194	4,765	358	7	24	1,179	16	453	0	86	0	440	21	0	0	679	5	0	0	0	77	0	11	13,338	144	186	0	50	27,036		
Buffaloes, ...	151	11	12	0	4	20	0	1	1	0	0	1	12	0	0	0	0	0	0	0	2	0	2	19	14	6	0	2	258		
Ponies,	12,931	13	2	0	1	7	2	6	0	2	0	15	3	1	0	31	11	0	0	0	9	1	1	18	252	48	0	76	13,430		
Camels,	183	25	0	0	0	0	0	0	0	0	4	0	0	0	0	0	2	0	0	0	0	0	0	0	64	37	6	2	323		
Asses,	155	14	0	0	0	187	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	0	0	404		
Total, ...	20,627	6,506	430	21	43	1,560	33	464	4	161	1	551	62	1	0	786	19	3	0	0	93	3	19	13,452	506	350	2,084	199	41,987		

Traffic and Imports into Pergunnah Mahoba from the Eastward, or Humeerpore and Banda.

Carts,	2,824	7,711	146	152	34	818	202	0	0	188	0	228	59	63	0	6	1	5	0	82	31	4	35	247	106	321	769	110	11,192	
Covered ditto,	4	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	194	0	198
Bullocks,	3,335	9,356	97	259	86	1,056	109	0	0	158	0	649	20	26	0	0	0	0	0	77	61	0	90	1,196	588	18	0	65	17,258	
Buffaloes, ...	185	1,078	28	11	0	561	95	0	0	69	0	0	1	0	0	1	0	0	7	38	2	0	6	2	0	2	0	8	2,097	
Ponies,	191	58	0	0	0	8	2	0	0	4	0	8	3	0	0	0	70	1	0	180	2	0	18	13	99	117	7,396	71	8,244	
Camels,	70	0	1	0	0	0	1	0	0	0	0	5	1	0	0	0	5	0	0	0	0	0	2	0	82	105	32	2	306	
Asses,	114	156	0	0	0	10	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	320	
Total, ...	6,753	18,359	272	422	120	2,453	411	12	0	419	0	890	87	89	0	7	76	6	7	381	96	4	151	1,458	879	563	8,391	259	44,215	

Traffic and Imports into Mahoba from the Westward or Chutterpore.

Carts,	2,928	2	5	0	3	2	0	108	8	6	27	0	30	1	26	21	1	13	23	13	35	301	13	2	3	15	1,854	116	5,556
Covered ditto,	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	166	0	187
Bullocks,	9,509	363	11	0	12	12	93	263	32	7	18	1	76	54	2	0	6	3	177	0	5,689	2,091	3	2	30	110	0	103	18,670
Buffaloes, ...	60	1	3	0	0	0	3	30	3	1	0	0	1	1	1	0	0	0	2	3	8	63	3	0	0	13	0	22	218
Ponies,	15,845	0	2	0	3	1	0	4	7	4	14	1	8	8	110	8	19	1	27	0	11	14	6	3	166	22	0	32	16,306
Camels,	116	0	0	0	0	0	0	2	0	0	1	0	0	0	7	0	0	1	0	0	0	9	0	0	4	41	11	38	230
Asses,	280	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	26	0	4	314	
Total, ...	28,758	366	24	0	18	15	96	407	50	18	50	2	115	64	140	29	26	18	229	16	5,733	2,480	25	7	205	228	2,031	315	41,481

APPENDIX No. III.

Population and Castes of the owners in the Villages of the Pergunnah Mahoba.

Villages.	Caste.	Men.	Women.	Boys.	Girls.	Total.
Utrar,	Nudwaneer Takoor, ...	315	312	188	139	954
Unulhai,	Beis Takoor,	0	0	0	0	0
Imilya,	Ahirs,	53	56	48	31	188
Ootiya,	Pomar Takoor,	414	343	183	125	1,065
Oorwara,	Chundels and Parihar Takoor, ...	310	307	191	140	948
Bareegurh,	Banafer Takoor,	807	729	508	459	2,503
Budoura,	Brahmin,	494	351	474	199	1,518
Bura Oobaree,	Lodhee,	262	223	153	46	684
Buraiipoora,	Khatree,	26	25	13	23	87
Busoura,	Lodhee,	122	105	67	46	340
Bughwa,	Beis Takoor,	251	192	89	55	587
Bilbai,	Lodhee,	854	739	399	307	2,299
Bilrahee Oobaree, ...	Parihar Takoor,	149	126	89	55	419
Bilrahee,	Brahmin and Lodhee,	160	188	198	103	649
Bumhouriya,	Gosaien,	53	43	42	30	168
Bumhouree Purgas, ..	Banafer Takoor,	594	524	388	239	1,745
Bumhouree Kugu, ..	Beis Takoor,	247	181	84	32	544
Buniya Tala,	Brahmin and Lodhee,	81	78	63	42	264
Bhuteeor,	Beis Takoor,	70	52	46	16	184
Bhundra,	Brahmin,	301	247	236	141	925
Bhuteepoora,	Mahomedan,	534	547	321	281	1,683
Beejunuggur,	Banafer, and Brahmin,	34	29	20	10	93
Beela,	Beis Takoor,	239	219	170	112	740
Bela,	Marwarce,	57	46	23	25	151
Puchpuhra,	Lodhee and Boondela,	100	87	70	63	320
Puchuhra,	Banafer Takoor,	72	67	59	44	242
Puswara,	Ditto and Lodhee, ...	367	299	146	123	935
Pulka,	Boondela,	107	88	62	53	310
Powa,	Lodhee,	539	553	300	248	1,640
Puhra,	Mahar Takoor,	620	607	336	209	1,772
Tindowlee,	Lodhee,	136	112	67	41	356
Thanah,	Banafer,	81	64	34	33	212
Tikree,	Banafer,	227	195	151	95	668
Tontiya Bara,	Brahmin,	1	1	0	0	2
Teekamow,	Koormee and Sunoreea Brahmin,	180	140	114	74	508
Joojhar,	Lodhee,	64	51	36	25	176
Jeoraha,	Banafer Takoor, ...	774	659	428	283	2,144
Jhursuhewa,	Kachee,	51	34	33	35	176
Chando,	Lodhee,	32	29	29	17	107
Chitaiya,	Ahir,	40	40	29	9	118
Chukmurela,	Beis and Banafer, ...	0	0	0	0	0
Chundpoora,	Lodhee,	85	73	63	42	263
Choorbura,	Lodhee,	75	68	52	19	214
Chhikehra,	Lodhee,	626	571	384	321	1,902
Dureeba,	Burrail,			with Mahoba.		
Dumowra,	Banafer Takoor,	100	84	55	63	302
Didwara,	Ahir and Googen, ...	327	311	187	129	954
Dhoondhut,	Goosaien,	172	138	88	75	473

Population and Castes of the owners in the Villages of the Pergunnah Mahoba.—Continued.

Villages.	Caste.	Men.	Women.	Boys.	Girls.	Total.
Dighuriya,	Kaehee,	51	75	84	47	257
Duhura,	Beis Takoor,	352	309	191	116	968
Dhikwaha,	Takoors,	93	85	69	42	290
Dhoondaiya, ..	Brahmin,	52	46	31	20	149
Rutonlee,	Beis and Banafer, ..	325	247	162	73	807
Ruhiliya,	Brahmin & Lodhee, ..	59	52	53	42	206
Raepoora Kloord, ..	Takoors,	67	59	49	19	194
Raepoora Kullán, ..	Kangar,	53	58	45	32	188
Raiwara,	Bugree and Mahar Takoor,	155	137	65	48	405
Sijuriya,	Lodhee,	88	122	115	66	391
Sijwaha,	Ditto,	158	151	103	65	477
Sijharee,	Ditto,	581	489	246	240	1,557
Sreenuggur,	Brahmin and Lodhee, ..	1,868	1,830	999	750	5,447
Sookoura,	Brahmin & Rajpoot, ..	151	106	68	41	366
Sularpoor,	Lodhee,	203	186	99	88	576
Shahpuharee,	Lodhee,	127	116	77	45	365
Shumshera Photera,	Brahmin,	11	9	8	3	31
Futtehpore,	Mahomedan,	0	0	0	0	0
Karee Puharee,	Brahmin & Lodhee, ..	275	146	136	105	662
Kubrai,	Beis Takoor,	1,001	825	459	295	2,580
Kiraree,	Lodhee,	51	32	28	12	123
Kuruhree,	Beis and Banafer, ..	18	15	13	8	54
Koomlhoura,	Boondela,	145	164	128	84	521
Kaimaha,	Chundel,	80	74	51	32	237
Khurka,	Bugree Kukoor,	328	306	153	122	909
Khooreree,	Parihar Takoor,	175	142	94	92	503
Kheoraiya, Jeoraiya,	Boondela,	104	113	111	73	401
Gunj,	Brahmin,	367	298	169	122	956
Goopalpoor,	Ditto,	0	0	0	0	0
Googoura,	Beis Takoor,	159	126	87	74	446
Gouharee,	Ditto,	125	126	65	19	335
Ghutuhree,	Brahmin,	107	98	85	37	327
Ghootwai,	Banafer & Brahmin, ..	33	30	30	15	108
Ghoojoura,	Banafer Takoor,	21	17	13	2	53
Mamna,	Lodhee,	86	83	51	57	277
Mujhuhwara,	Ditto,	256	262	35	111	664
Mirtula,	Ditto,	60	51	37	29	177
Makurbai,	Beis Takoor,	534	449	353	131	1,467
Moodhura Khoord,	Lodhee,	104	84	84	57	329
Moodhura Kullán, ..	Takoors,	600	490	233	156	1,479
Mooranee,	Lodhee,	48	34	26	28	136
Moeheepoora,	Brahmin,	184	168	111	67	530
Muwai,	Komar Takoor,	83	77	65	60	285
Mahoba,	Mahomedan and Ka- ehee,	1,932	1,965	1,344	922	6,163
Nothoopoora,	Lodhee,	25	31	26	15	97
Nuhdoura,	Brahmin,	48	38	32	17	135
Naigoan,	Beis Takoor,	77	81	58	12	228
Hurdooah Bulkora,	Bugree and Mohar Takoor,	0	0	0	0	0
Total, ...		22,626	20,347	13,267	9,147	65,387

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL,

FOR SEPTEMBER, 1859.

The Monthly General Meeting of the Asiatic Society was held on the 7th instant.

A. GROTE, Esq., President, in the Chair.

The Proceedings of the last meeting were read and confirmed. Presentations were received—

1. From the Principal, Grant Medical College, Bombay, a copy of the Report of that Institution for the Session 1858-59.

2. From the Bombay Government, a copy of the Annual Report on the Sind Forests, for the year 1858-59.

3. From Captain Hodge, in command of the *Sesostris* guard ship, at Port Blair. Numerous specimens illustrative of the Zoology of the Andaman Islands.

4. From Captain Eales, commanding the *Fire Queen*, an example of the gigantic cobra (*Hamadryas vittatus*.) also from Port Blair.

5. From Babu Rajendra Mallika. A dead Orang-utan.

6. From Major S. R. Tickell, Maulmein, skins of a rare squirrel and of a white-headed *Halcyon*.

7. From Captain Jethro Fairweather. Skull of a Dolphin, taken in the Bay of Bengal.

8. From Major R. C. Tytler, another skull of a Dolphin, taken westward of the Cape of Good Hope.

The following gentlemen duly proposed at the last meeting were ballotted for and elected ordinary members :—

Dr. A. Campbell, Darjeeling, (re-elected); Captain J. Sherwill, Revenue Survey, Dinajpore; Captain H. Hopkinson, Commissioner, Tenasserim Provinces re-elected; A. E. Russell, Esq., c. s.; W. L. Wilson, Esq.; the Rev. F. F. Mazuchelli, D. D.; Major Seymour Blane; J. Geogeghan, Esq., c. s.; Dr. E. Goodeve; Major Douglas, Professor of Natural Philosophy and Astronomy, Presidency College (re-elected); R. Jones, Esq., Professor of Moral and Mental Philosophy, Presidency College (re-elected); David M. Gardner, Esq., c. s.

The following gentlemen were named for ballot as ordinary members at the next meeting:—

Dr. C. Archer, proposed by the Ven'ble Archdeacon Pratt and seconded by Mr. G. Loch.

Captain J. C. Haughton, Superintendent of Port Blair, proposed (for re-election) by Mr. Atkinson and seconded by Dr. Thomson.

Augustus Fisher, Esq. proposed by Mr. J. G. Medicott and seconded by Mr. H. Scott Smith.

Dr. G. K. Hardie, proposed by Mr. J. G. Medicott and seconded by the President.

Lewin Bentham Bowring, Esq. c. s., proposed for re-election by Mr. Atkinson and seconded by the President.

D. Fitzpatrick, Esq. c. s., proposed by Mr. Beaufort and seconded by Mr. Atkinson.

Captain Forlong, Madras Army, Moulmein, proposed by Dr. Fayer and seconded by Mr. Medicott.

The Council reported that they had addressed the following letter to the Secretary of State for India, with the documents annexed, on the subject of the foundation of an Imperial Museum in Calcutta:—

To the Right Hon'ble the Secretary of State for India.

RIGHT HON'BLE SIR,—I am directed by the Council of the Asiatic Society of Bengal to submit for your consideration the accompanying correspondence, which has passed between them and the Supreme Government of India relative to the establishment of an Imperial Museum in Calcutta, with documents attached, which appear requisite for the complete illustration of the subject.

The Council desire me to say that although they believe that the general plan sketched out in my first letter to the Government of

India is one which is eminently adapted in the present state of Science and Education in India, to promote the interests of both, yet that they are far from wishing it to be understood that their own is the only scheme to which they are willing to lend their aid. To advance the interests of Science in the most effectual way is their sole desire, and they will gladly assist in furthering any scheme which may appear better calculated to effect this great object, provided it be compatible with the trusts confided to their care.

The Council are fully aware that the pressure of financial difficulties at the present time must prevent the immediate adoption of any comprehensive plan involving a large outlay of money, but they desire to lay before you the facts of the case, and the arguments in favor of some such arrangements as they have proposed, believing that an expression of opinion on the part of Her Majesty's Secretary of State for India in favor of such a scheme would tend in no small measure to insure its ultimate success.

I have the honor to be, Sir,

Your most obedient servant,

(Sd.) W. S. ATKINSON,
Secy. Asiatic Society.

CORRESPONDENCE WITH THE GOVERNMENT OF INDIA.

Asiatic Society's Rooms, Calcutta, dated 8th October, 1858.

To C. BEADON, Esq.,

Secy. to the Govt. of India, Home Dept.

SIR,—I am instructed by the Council of the Asiatic Society of Bengal, to communicate to you, for submission to the Honorable the President in Council, that at a General meeting of the Society, held on the 6th May, 1857, the following resolution, based upon a report from the Committee of Natural History (of which a copy is annexed), was proposed by the Council for adoption by the Society, and was passed at a numerously attended meeting—

“That the Council be authorized to enter into communication with the Government on the subject of the foundation at Calcutta

of an Imperial Museum, to which the whole of the Society's Collections, except the Library, might be transferred, provided the locality, the general arrangements, and management be declared, on a reference to the Society at large, to be perfectly satisfactory to its members."

2. The Council were on the point of soliciting the Government of India to take into its favourable consideration the subject of the resolution when the terrible events of the last year burst upon us. The time was obviously no longer suited for such discussions, and it became necessary to wait till the question could once more be approached with propriety. This, the Council venture to think, may now be done.

3. The Council of the Society, first desire gratefully to acknowledge the support which they have so long received from the Government; a support which has in all cases been accorded with liberality and frankness. At the same time they may express their conviction that the Society has not been found wanting on its own part. In the face of many difficulties, the Asiatic Society has, it is believed, continued to advance the cause of knowledge from the days of its illustrious founder to the present time. Large and important collections have been brought together and preserved by its means; and an unbroken series of publications has been maintained in its *Researches and Journal*, which may generally bear a favourable comparison with the records of the learned societies of Europe, and among the pages of which, may be found many most valuable contributions to Literature and Science.

4. The Council further have to express the high sense they entertain of the liberal and enlightened arrangements which have recently been adopted for the extension of education and the general advancement of knowledge in this country; and, speaking in the name of the oldest of the Literary and Scientific bodies in the East, they feel that they may beg to be heard on what they deem a most important element in all such arrangements, the foundation of a Public Museum on a comprehensive basis.

5. In addressing the Government on this subject, an explanation may seem due in regard to a former decision of the Society concerning its Geological collections, by which it may have appeared, in

some measure, to have failed in co-operating with the Government almost in the very matter on which it now claims assistance. This decision arose from a conviction, which, if mistaken, was certainly honorable and justifiable, that the separation of an important portion of the Society's collections would be injurious to its interest or even fatal to its existence; but the Resolution, which empowers the Council now to address the Government, sufficiently attests the opinions of the Society upon the present question.

6. In proceeding to explain more precisely the nature of their present proposal, the Council would remark how important it is that the efforts of all who are interested in the progress of the various branches of Natural Science in this city should be combined in one and the same direction. So long as our Collections are broken up into detached portions, we deprive them of half their value, because they do not afford to the Scientific investigator those means of comparison, which, from the intimate relations between the several Natural Sciences, are essential to complete and successful research. The interest of scientific enquiry and the means of useful study must be greatly diminished, if we lose the opportunity of tracing out the connections and relations between natural objects. A Museum, so far as it is practicable, should exhibit unbroken that series of links which actually exists in Nature. Cordially approving therefore, the expressed intention of the Government to form in connexion with their Colleges such Natural History or other collections as may be requisite for the purposes of instruction, the Council would most earnestly insist on the superior advantages which must result from the establishment of one Central and General Museum in which all our resources, (which on the most sanguine estimate certainly are not likely to be excessive,) should be concentrated. It is to solicit the Government to undertake the foundation of such a Museum in which all our available Natural History Collections might be combined, and in which should be provided a fitting place of exhibition for other objects of interest whether Physical, Economical, or Historical, that the Council has instructed me now to address you; and it is for the foundation of such a Museum that the Society is prepared, in the terms of its Resolution, to bestow the whole of its own collections.

7. The final acceptance of any terms, which the Government may see fit to offer, must, under the Resolution, rest with the Society at large, and it will not be necessary for the Council at present to enter into any detailed consideration of the arrangements that might, in their opinion, be best suited for such an Institution; but it may be convenient if they explain generally the footing on which they think a Public Museum might be constituted in Calcutta.

8. The first question to be considered, is, that of locality. Such a Museum as is contemplated would probably, to say the least, be as much frequented by Europeans as by Natives. The majority of its visitors would not be the pupils of any scholastic institution. Those who would derive most benefit from it would be persons who, having acquired the first elements of knowledge elsewhere, would use the Museum and its adjuncts as aids in the further pursuit of their enquiries. The Museum, therefore, should be conveniently situated for all classes, and being itself a marked evidence of progress in civilization, it ought to find its abode in the best part of the city. The Council is of opinion that the Society's premises, which are its own property, afford a very suitable locality. The situation is one of the most desirable in Calcutta, and the fact that large numbers of Natives of all classes now visit the Society's collections, is evidence that it is not found inconvenient to the native population.

9. A Museum like that contemplated ought not to be viewed as a portion of any merely scholastic arrangements. Once classified, catalogued and arranged, the valuable specimens which would form the main series of such a public Museum, must not be removable, and more especially must not be subjected to the risk of breakage and loss which their use in the common class rooms would entail. From the many duplicates, however, which every such collection affords, a perfectly effective, though limited set of specimens in each department could readily be supplied for lecturing purposes. A Public Museum of the kind contemplated would form a most valuable and a most essential portion of all complete educational arrangements, but, in the opinion of the Council, it ought not to be made subordinate to any individual School or College. It should, they think, be viewed rather as an adjunct to the University, than as a part of any mere collegiate plan. It ought to be, as it were, the general library

of reference and consultation for all students of all schools, not the lending library of one alone.

10. And the Council would here venture to make a few remarks relative to the domicile of the University which they trust will not be thought inappropriate. The true and logical idea of a University will, they fear, run some risk of being lost, if it becomes liable to be identified even in appearance with one of its affiliated Colleges, by being domiciled under the same roof with it. At the same time, any College thus connected with the University would be raised to undue pre-eminence among its fellows. The Council think they are justified in this view by the history of the London University while temporarily housed in University College; and if this juxtaposition created a serious misconception of the distinct aims and position of each in Great Britain, where the public have been for centuries accustomed to Collegiate and University arrangements, it will be infinitely more likely to do so in India, where they are perfectly novel.

11. The Council are disposed to think, that the natural domicile of the University if it be housed with any other public body, should rather be with the Asiatic Society. The one body is charged with the serious and responsible task of testing the progress of the higher classes of the students of the country, and of rewarding the successful cultivation of Literature and Science. The other is a voluntary association of those, who being themselves devoted to the pursuit of knowledge, have combined for the encouragement of learning and the advancement of science. The Council believe that considerations of this kind materially influenced the arrangement that has been carried out in London, by which the London University is located with the Royal Society of London, and other Scientific Societies, in Burlington House.

12. The combination of the several departments of a national Museum, of the Halls of the University, and of the Meeting Rooms and Library of the Asiatic Society under one and the same roof, would therefore appear to the Council to be very natural and very desirable. They do not think it needful to urge at length the importance of the facility of reference thus afforded, or the value of the mutual assistance which each department of the Museum, and the Society itself, would derive from such an arrangement. These advantages are obvious.

13. Such a Museum would of course be freely open to the Public, (as that of the Asiatic Society now is) under suitable regulations.

14. With respect to management, if the suggestion above thrown out were adopted, and the University of Calcutta, the Asiatic Society of Bengal, and the National Museum, were combined under one roof, it might be thought that a board selected from among the members of the University, and of the Asiatic Society, would afford a practicable and effective control. A Board of some sort seems to be essential to provide an efficient general control over the various departments of which the Museum would consist, and to ensure steadiness of purpose and system ; and as the nucleus of the Museum would be the gift of the Asiatic Society, that body might have the power of selecting some of its own members to share in the management. Such an arrangement would probably remove objections to the proposed transfer entertained by some of our members, who think that the Society has no right to alienate collections, which they conceive to be held by it on trust.

15. As to the extent of the Museum, it must of course, be regulated by the funds that the Government might find itself in a position to set aside for such an object. A natural limit might readily be assigned to it by confining it specially to the preservation of objects collected in India with such small additions of a typical character as might be necessary for purposes of illustration.

16. But the Council will abstain from entering into details in respect of this, as of other matters, and they will only further add that in an economical point of view the combination of all the Natural History collections in one Museum, would appear advantageous not only as respects the staff of Curators, but as it might be made ancillary to the appointment of Professors of Natural Science, whose lectures would be accessible to all students, from all educational institutions, on terms of perfect equality.

17. The Council having thus briefly indicated the general nature of their proposal, desire to explain the causes which have more immediately led to the present application of the Society. With the gradual accumulation of their collections, it has at length become apparent that the funds of the Society are quite inadequate for the proper maintenance or display of the specimens. The collections are still in a satisfactory state of preservation, but the Council cannot

avoid looking forward to the day when they will sensibly begin to deteriorate, if precautions are not taken for their better preservation, which unfortunately are beyond the very limited means at the disposal of the Society.

18. From the want of space, and the restricted funds, the arrangement of the collections is also of necessity in a very imperfect condition; so much so, that the Museum of the Society, although it contains a most valuable collection of specimens of all descriptions, has little claim to be considered in the light of a scientific Institution.

19. The Council are convinced that from want of funds, present or prospective, the Society is powerless for good in this matter, and that the only step that can be taken to insure the preservation of these most valuable collections from eventual destruction, and to render them really useful in a scientific point of view, is to make their present proposal. They are aware that at the present time, financial considerations are likely to constrain the Government to pay the strictest attention to economy in dealing with this matter. But in the existing state of the Society, and of the collections, they feel that they can delay no longer in submitting the question for decision.

20. In conclusion, I am instructed again most respectfully but most earnestly to commend to the favourable consideration of the President in Council this important subject, I am to assure the Government that the Asiatic Society will approach the discussion of any details connected with it, into which they are prepared to enter in any manner that may be thought most suitable, with the warmest appreciation of the liberality with which the Society's efforts have always been seconded by the Government, and with the strongest sense of the enlightened views which have guided the Government of India in the cause of Education.

I have, &c.

(Signed) W. S. ATKINSON,

Secretary to the Asiatic Society of Bengal.

REPORT OF THE COMMITTEE OF NATURAL HISTORY.

The Committee of Natural History having been directed by the Council of the Society to consider the condition of the Natural

History collections, their first care was to provide for matters of immediate necessity, and the recommendations which they made on these subjects have already met with the ready approval of the Society.

They now propose to enter more fully on the larger question of the future disposal of the Natural History collections generally.

The Committee have had several meetings, and have enquired carefully into the condition of the specimens, the accommodation available in the Society's house, and the efficiency of the Curator's staff.

The Zoological collections are very extensive and valuable, they have been found on the whole in a fair state of preservation, though they have certainly not received that amount of care of which they are deserving. The Society's collection of Indian Birds is believed to be the largest and most complete of any that exists in any Museum in the world, and the series of Quadrupeds is very rich.

The Committee would here beg to bring prominently to notice, as a result of their present investigations, that the generally satisfactory condition in which the specimens in the Museum have been found, notwithstanding the insufficient care which has been bestowed upon them, distinctly shows that the idea, believed to be prevalent, of the climate of Bengal being necessarily destructive to Natural History collections is altogether erroneous. Zoological specimens are undoubtedly perishable objects, but those precautions which will preserve them in the Cabinets of a European Museum, for precautions are every where necessary, will certainly be found equally efficacious in this country also. Any objections therefore to the maintenance of such collections, based upon the special difficulties of preserving them in the climate of Calcutta, must be held to be fallacious.

The Society's collection of Fossils is also very valuable, especially those of Tertiary age from the Sewalik range, Ava and Perim Island.

With reference to the House, we would observe that the interior arrangements are generally ill-adapted for the purposes of a Museum. The ground floor is particularly objectionable. The upper story alone can be considered available for the arrangement and exhibition

of the perishable collections, or for the location of the Library. The light is every where defective, especially on the ground floor. The space is already insufficient for the demands made upon it by the existing Museum, (including the Zoological and Geological collections and the Antiquities), by the Library and the Society's Meeting Room. The rooms on the upper floor are even now over-filled, and if a sufficient number of cases were set up for the proper display of the existing collections, the space would be blocked up in a most objectionable and inconvenient degree. The cabinets are now excessively crowded, many skins are put away, because there is no room for them to be set up, and no possible accommodation exists for any future increase to this part of the museum. The size and position of the available rooms is awkward, not permitting of the proper consecutive arrangement of the several groups of objects in each department, a point of altogether primary importance in illustration of those branches of knowledge which are emphatically termed Sciences of classification.

The establishment maintained for the care of the Zoological collections has of late years been quite insufficient to meet the demands made upon it for setting up new specimens and for watching or cleaning those already placed in the cabinets. The Mineralogical and Geological collections have lately been deprived of any special custodian, by the removal of the Government Museum of Economic Geology, and the withdrawal of the grant for many years made by the Government to the Society, for the purpose of paying a joint Curator for this department of the Museum. This part of the collections urgently requires re-arrangement, but it is not easy to see how it can be accomplished under existing circumstances. The Zoological Curator, Mr. Blyth, is confessedly incompetent to undertake the duty; nor indeed, would it be reasonable to expect that any one man, should possess the requisite attainments in all branches of Natural Science, to superintend effectively the scientific arrangement or management of the whole Museum; still less, that with such a salary as that of our present Curator, the services of a man of education can be retained, or his exclusive and entire attention secured to the duties of his office.

Under these circumstances, we have to inquire whether the funds at the disposal of the Society are sufficient to make those alterations in the Building which would make it suitable for the purposes of a Museum, and whether the Society can maintain such an establishment as shall ensure the satisfactory custody and arrangement of the specimens. The Committee is of opinion that the funds are quite inadequate to any such objects.

And first we have to remark that the entire available balance now in hand is less than 4000 Rs. But it is clear that the whole of this could not reasonably be expended on the Natural History Museum. The library might, with much advantage, have a large portion of this sum devoted to it, and the repair of the building which will be again required in less than two years, will absorb upwards of a thousand Rupees, for which prudence demands that a provision should be made beforehand.

Neither is the income of the Society sufficient to give any hope of such an addition being possible to the Curator's staff of assistants, as will provide efficient supervision of a scientific character. The sum placed at the disposal of the Society by the Government is quite inadequate to secure the services of even one properly qualified Curator and the means of the Society do not enable it to make good the deficiency. It need hardly be added that without proper Curators a Museum almost ceases to be a scientific institution.

On the whole, the Committee is convinced that the Asiatic Society is not capable of supporting a Natural History Museum on any but the most limited scale; and that, without a considerable addition to the Government grant now made, even the existing collections cannot be maintained. If things are left on their present footing a gradual deterioration must take place in the condition of the collections, and sooner or later they will pass from their present unsatisfactory state into one of entire ruin.

Any help which the Government is at all likely to proffer to the Society would certainly be inadequate to provide for any future extension of the Museum, and unless some entire change of organization takes place, it will, in the opinion of the Committee, be the duty of the Society henceforth to decline all contributions. To accept donations of specimens involves a tacit agreement to preserve

and exhibit them, an obligation up to which the Society will be quite incapable of acting.

In considering under these circumstances what measures to propose to the Society, the Committee must first think of what is possible. In the present state of the Society, and with its existing income, to support a general Museum as a Scientific Institution is clearly not possible, and it should not be attempted. The utmost that can be hoped for is to be able to rescue from destruction the existing collections and to preserve them until some time more propitious to Science may come. But before tamely accepting such a result, the Committee would suggest to the Society that an appeal should be made to the Government on this subject.

The motives which have led the Governments of all other civilized nations to establish Museums at their capitals apply with equal force in the case of British India.

Nor would arguments be wanting to show that the obligations on the British Government to endow a Museum at Calcutta have even more than usual cogency. For if such a patronage of Science is fitting in a national Government like that of England which affects no greater wisdom, no superior civilization, no larger liberality, than the mass of the citizens, does it not become a paramount duty in this country where the rulers are a handful of foreigners who claim for themselves the ability, if not the will, of taking the lead in all improvements.

The enlightened views which the Government of India have already displayed in the establishment of the University of Calcutta and the Geological Museum, and the intentions which it is understood to have in respect to the formation of College Museums, give reasonable grounds to hope that a proposition for the foundation of a National Museum at Calcutta might be favourably received by the Government at the present time; and considering what has already been said of the inability of the Society to maintain a Museum on any really satisfactory footing, the Committee trusts that the Society may be disposed to concur with them in the propriety of the proposal which they have made.

But they are strongly impressed with the conviction that in

making such a request to the Government, the Society should do all in its power to show the earnestness of its own views, and to afford positive proof of its willingness to co-operate with the Government in carrying out so important an object, and that the application of the Society should consequently be accompanied by an offer of the contribution of the Society's collections to form the nucleus of the Public Museum.

The Committee are aware of the strong objection that is felt by many Members of the Society to parting with the collections which have been accumulated under the Society's auspices and have so long been preserved in the Society's house. And fully sympathizing with these feelings, it is only on what they must consider to be certain proof of the inability of the Society to maintain and exhibit those collections in a manner worthy of its reputation as a Scientific body, or so as to be really available for students, or to lead in any way to the advancements of Science, that they make this proposal. They look upon it as quite unreasonable in itself to expect that the Government should keep up a Public Museum such as they have advocated, and the importance of which can be contested by no lover of Science, in addition to the Museum of the Society. And on merely scientific grounds they conceive that in the event of a really good Museum being established, such as they trust may be found possible, it would be most desirable that all the available collections both of Natural History and Geology should be united, and that the resources of the Museum, whether in reference to the contributions of specimens, or the means required for its support in men and money, should be as much concentrated as possible, and not divided between separate institutions.

The Committee would further remark that the fear expressed by some Members of the Society that the separation of the Museum from its immediate custody would lead to the dispersion of the Society or would diminish its usefulness is, in their opinion, quite unfounded. The Royal Society of London which, in the range of the subjects of which it takes cognizance is more akin to this Society than any of the other English learned Societies has never had any Museum; among those Societies possessing Museums not a few have found them causes of debt and difficulty, and most prejudicial to their interest;

while several have found it necessary to give up their collections altogether from reasons similar to those which now press upon this Society.

The Committee would also wish to explain in reference to their proposal that the Society should offer its collections to a National Museum, that they by no means advise that the collections should be handed over without conditions to be placed at the disposal of the Government. It might reasonably be expected that the Government would see the justice of admitting into the managing body of any Public Museum some representatives of the Society, which had presented so valuable a contribution as these collections, and which might always be expected to contain within its ranks the principal Scientific men of the country. But it does not seem necessary in the present stage of things to enter into further details on such a subject, nor would it be proper to introduce the mention of any conditions in first addressing the Government.

The question of the position of the Museum is another of those points which would require consideration, but the discussion of this too seems at present premature.

The Committee therefore conclude by reporting to the Council that they recommend that the consent of the Society should be requested to authorize the Council to communicate with the Government on the subject of the foundation at Calcutta of a National Museum on a fitting scale, and in a convenient situation, to which the whole of the Society's collections might be transferred.

(Signed) R. STRACHEY,
W. S. ATKINSON,
T. BOYCOTT,
THOMAS THOMSON,
E. SAMUELLS.

Dated, 20th March, 1857.

FROM C. BEADON, ESQ.,

Secretary to the Government of India.

TO THE SECRETARY, ASIATIC SOCIETY.

Dated, Council Chamber. The 8th December, 1858.

SIR,—I am directed to acknowledge the receipt of your letter

dated the 8th October last, submitting, on behalf of Home Dept. the Council of the Asiatic Society for the consideration of the Government of India, a proposal to found in Calcutta an Imperial Museum to which the whole of the Society's collections, except the Library, should be transferred on such terms as might prove satisfactory to the Members of the Society.

2. The Council appear to incline to the notion that the University of Calcutta, the Asiatic Society, and the proposed Imperial Museum, should all be located in one building, namely, the house belonging to and occupied by the Society, and that the Museum should be controlled by a Board selected from among the members of the University and of the Society.

3. It is apparently contemplated that the whole of the expense of the Museum, involving not only the maintenance and preservation of Natural History and other collections now belonging to the Society, but also their further extension should fall upon the Government, and that the Society's Funds should be charged only with the expense of the Library and perhaps the repairs of the building. The liability of the Government on this understanding would be indefinite or rather limited only by the amount it might choose to assign for the purpose. It is evident that some considerable additional expense would have to be incurred at once, as the funds of the Society, aided as they are by a monthly grant of Rupees 300 from Government, are insufficient for the proper maintenance and display of the specimens now in the Society's possession.

4. The President in Council without at all committing the Government to an approval of the scheme sketched out by the Council, recognizes it as a duty of the Government to establish in the Metropolis an Imperial Museum for the collection and exhibition of specimens of Natural History in all its branches, and of other objects of interest, physical, economical, and historical, when the existing pressure on the public finances shall have been relieved. At present the project is not one that can be entertained unless the Society can show that it may be adopted without incurring any considerable expense, and in that case many modifications would be necessary before it could be favourably received.

5. Meanwhile if it would be any convenience to the Society to

transfer its Geological and Palæontological collections to the Geological Museum, thereby at once relieving itself of the cost of maintaining them and rendering a considerable amount of room available for other purposes, the President in Council is prepared to renew the proposal made to that effect in my letter No. 1071 dated the 11th July, 1856, to which the Society at that time declined to accede.

I have, &c.

(Sd.) C. BEADON,

Secretary to the Government of India.

From the Secretary to the Asiatic Society of Bengal.

TO C. BEADON, ESQUIRE,

Secretary to the Government of India,

in the Home Department.

Asiatic Society's Rooms, Calcutta, dated 6th April, 1859.

SIR,—The Council of the Asiatic Society having had under consideration your letter dated December 8th, 1858, desire me to express the great satisfaction with which they have received the announcement it contains that the President in Council recognizes it as a duty of the Government to establish in the metropolis an Imperial Museum, although this announcement is coupled with an intimation that at present the project cannot be entertained unless the Society can shew that it may be adopted without incurring any considerable expence.

The Council do not wish to disguise the fact that a considerable outlay will ultimately be required in order to establish and maintain a public Museum on a scale befitting the requirements of Science and worthy of the Metropolis of India.

But a sum which the Council think could not be considered by the Government considerable, would enable the Society to maintain their existing collections in satisfactory order till the Public Museum can be established, and provide for their exhibition and their natural extension.

These collections will eventually if the proposed scheme be carried out, form the nucleus of the Public Museum, and the Council venture to think that the expenditure which is now required for their preservation and exhibition, might therefore, consistently with

the declared intentions of Government, be at once provided for at the public cost.

Total expenditure for the year, 1858.

Curator, 3,480

Taxidermists, 932

Servants, 390

Cases, 813

Contingent, 239

Rs., 5,854

Rs., 5,854

The expense of the Museum for the last year in addition to the allowance made by Government has amounted to Rupees 2,254.

Deduct present Government

allowance, 3,600

Rs., 2,254

Rs., 2,254

The Council has therefore directed me to solicit either a further grant of Rupees 200 per mensem in addition to the sum now contributed towards the support of the Museum, or, if it be deemed preferable, that the Government would take on itself the actual cost of the Museum within the limits of Rupees 6,000 annually under such check as may be thought suitable.

The aid thus solicited from the Government would, the Council think, not be perceptible as a burden on the finances, while it would for the present at least secure the valuable collections of the Society from the risk of deterioration to which the Council drew the attention of Government in my former letter on the subject.

With regard to the Society's Geological and Palæontological collections, the Council desire me to say that in the prospect of the establishment of a general museum which shall embrace all the branches of Natural History, it appears to them undesirable to separate temporarily one portion of the collections from the rest. Such a separation would only be an additional source of expense; the objects comprised in the Geological collection are imperishable, and their preservation now costs the Society nothing; were they removed, the rooms they occupy would necessarily require new fittings at a considerable outlay in order to make them available for

a better arrangement and display of other portions of the general collections.

I have, &c.

(Signed) W. S. ATKINSON,
Secy. Asiatic Society.

From W. Grey, Esquire, Secy. to the Govt. of India.

To the Secy. to the Asiatic Society.

Dated, Council Chamber, 3rd May, 1859.

SIR,—I am directed to acknowledge the receipt of your letter, No. 95, dated the 6th ultimo, and in reply to inform you Home Dept. that the Governor-General in Council is unable to comply with the application preferred by the Council of the Asiatic Society for a further grant of 200 Rs. a month towards the support of the Society's Museum.

I have the honor to be, Sir,

Your most obedient servant,

(Sd.) W. GREY,
Secy. to the Govt. of India.

Communications were received :—

1st.—From Dr. G. Buist of Bombay, a paper on the Curia Muria Islands on the north-western border of the Arabian Sea.

2nd.—From E. Blyth, Esq., a paper on the Great Rocqual of the Indian Ocean, with notices of other Cetacea and of the Syrenia or aquatic Pachyderms.

3rd.—From the same, a paper entitled Notices and Descriptions of various Fishes.

4th.—From J. D. Gordon, Esq. Officiating Under-Secretary to the Government of India, Copy of a statement of Doodnath Tewarry, a convict in Port Blair who had lived for many months with the aborigines of the Island.

5th.—From Baboo Radhanath Sikdar, abstract of the results of the hourly Meteorological Observations taken at the Surveyor General's Office in the month of March, 1859.

The Ven'ble Archdeacon Pratt read a paper on the influence of Mountain-attraction on the determination of the relative heights of Mount Everest and the Mountains of Kashmir.

The thanks of the meeting were voted to Mr. Pratt for his valuable and interesting communication.

The Curator and the Officiating Librarian submitted their usual monthly reports.

LIBRARY.

The following accessions have been made to the Library since the Meeting in July last.

Presentations.

Selections from the Records of the Bengal Government, No. 30, Reports on the districts of Pooree and Balasore, by Henry Ricketts, Esq. 2 copies.

—BY THE BENGAL GOVERNMENT.

The Oriental Baptist for July, 1859.

The Oriental Christian Spectator for June and July, 1859.

The Calcutta Christian Observer for July and August, 1859.

Bibidhartha Sangraha for Joysto, 1781 Saka.

Reports of the Juries of the Madras Exhibition of 1857.

Official and Descriptive Catalogue of ditto.

Madras Exhibition of 1859 of the Raw products of Southern India.

General Report on the Administration of the several Presidencies and Provinces of British India during 1857-58. Part II. Appendices to Part II. of the Administration Report for 1857-58.

Selections from the Records of the Madras Government, No. 59.—Administration Report of the Madras Public Works for 1857-58.

Journal of the Agricultural and Horticultural Society of India, Vol. X. P. III.—BY THE SOCIETY.

Taj Bowree or Photographical Drawings at Beejapore.—BY THE HON'BLE THE COURT OF DIRECTORS.

Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Philosophisch-Historische Classe. Band 23, Hefts 1, 2, 3, 4 and 5. Band 24, Hefts 1 and 2. Band 25, Hefts 1, 2 and 3. Band 26, Hefts 1 and 2. Band 27, Heft 1.

Ditto ditto Mathematisch naturwissenschaftliche classe. Band 23, Heft 2. Band 24, Hefts 1, 2 and 3. Band 25, Hefts 1 and 2. Band 26. Band 27, Heft 1. Band 28, Hefts 1 to 6. Band 29, Hefts 7 to 12. Band 30, Hefts 13 to 15.

Voyage de l'Eugenie.—Physique, Livraison, 1; Botanique, 1; Zoologie, 1 and 2; Physique, 1; *Stockholm.*

Monatsbericht der Koniglichen Preuss. Akademie der Wissenschaften zu Berlin, from January to December, 1858, 12 parts in 11. *Berlin.*

Memoires de l'Académie Impériale des sciences, belles-lettres et arts de Lyon. Classe des Lettres. Tomes 3, 4, 5 and 6. Classe des sciences, Tomes 3 to 7. *Lyon.*

Annales des sciences physiques et naturelles, 2nd series, Tomes 7 and 8. 3rd series, Tome 1.

Quarterly Journal of the Geological Society, Vol. 14, part 3rd, and Vol. 15th, part 2nd. London. By the G. Society.

Fontes rerum Austriacarum: österreichische Geschichtsquellen der Kaiserl. Akademie der Wissenschaften in Wien, Zweite Abtheilung, Bände 14, 15 and 17.—BY THE AUSTRIAN ACADEMY.

Archiv für Kunde österreichischer Geschichtsquellen, der Kaiserl. Akademie der Wissenschaften, Band 18, 2nd part, Band 19, 1st and 2nd parts.—BY THE SAME.

Bijdragen tot de Taal-land-en Volkenkunde Van Nederlandsch Indie. Tweed Deel, Tweed Stuk. Batavia, 1858.—BY THE BATAVIAN SOCIETY.

Almanach der Kaiserl. Akademie der Wissenschaften, 1858.—BY THE AUSTRIAN ACADEMY.

Notizenblatt, Beilage zum Archiv für Kunde österreichischer Geschichtsquellen, Wien, 1857.—BY THE SAME.

Monumenta Habsburgica, der Kaiserl. Akademie der Wissenschaften, Dritter Band, 1858.—BY THE SAME.

Die Principien der Heutigen Physik. Von der Kaiserl. Akademie der Wissenschaften. Von Dr. Andreas Ritter v. Eettingshausen, Wien.—BY THE SAME.

Festrede bei der Feierlichen Übernahme der Kaiserl. Akad. der Wissen. Von Dr. Theodor Georg Von Karajan. Wien.—BY THE SAME.

Mémoires sur les Contrées Occidentales par Hiouen-Thsang. Traduit du Chinois par M. Stanislas Julien. Tome II.—BY THE ROYAL SOCIETY.

Jahrbücher der K. K. Central-Anstalt für Meteorologie und Erdmagnetismus, von Karl Kreil, 5th Band. Wien, 1858.—BY THE AUSTRIAN ACADEMY.

Integration der Linearen Differentialgleichungen, von Dr. Joseph Petzval, 5th Lieferung.—BY THE SAME.

Denkschriften der Kaiserl. Akademie der Wissens. Bände 8th, 13th and 14th, 1857 and 1858.—BY THE SAME.

Abhandlungen der Akad. der Wissensch. for 1857.—BY THE SAME.

Mémorie della Reale Accademia Della Scienze di Torino. Serie Seconda. Tome 17.—BY THE ACADEMY.

Proceedings of the Society of Antiquaries of London, 1857, pamphlet.

Abhandlungen für die Kunde des Morgenlandes, 1st Band No. 5, Leipzig, 1859.—BY THE GERMAN ACADEMY.

The Athenæum for May and June, 1859.—BY THE EDITORS.

Proceedings of the Royal Geographical Society of London, Vol. III. No. 3, 1859.—BY THE GEOGRAPHICAL SOCIETY.

Journal of the Statistical Society of London, Vol. XXII. Part 2nd.—BY THE STATISTICAL SOCIETY.

Response Mesurée de M. Stanislas Julien de M. Reinaud.

Question Scientifique et Personnelle de M. Reinaud, pamphlet, 2 copies. *Paris.*

Über Ghazzalis Leben und Werke, von R. Gosche, der Kaiserl. Akad. der Wissensch. Berlin.

Proceedings of the Royal Society, No. 343.—BY THE ROYAL SOCIETY.

Oriental Baptist, Vol. XIII. No. 152, for August, 1859.

Annual Report on the Sind Forest for 1858-59.

Ditto ditto of Grant Medical College, Bombay, for Session 1858-59.

Annals of Indian Administration, Vol. III. Part 2, for June, 1859.

Journal Asiatique for April and May, No. 51, 1859.

London, Edinburgh and Dublin Philosophical Magazine.—Nos. 116 and 117 of Vol. XVIII.

Purchased.

Annals and Magazine of Natural History, No. 19, for July, 1859.

Revue et Magasin de Zoologie, Nos. 5 and 6, 1859.

Ditto des deux mondes, for 15 June and 1st July, 1859.

Journal des Savants for May, 1859.

Comptes Rendus, Nos. 21 to 25, 1859.

Tables ditto, Tome XLII.

Literary Gazette, Nos. 51 to 54, 1859.

Westminster Review for July, 1859.



Report of Curator, Zoological Department, for September, 1859.

1. From Major H. B. Luumsden, 59th N. I., late in charge of the Kandahar Mission.

The skin and skull of a *Ghur-khur* (ASINUS ONAGER), as noticed in p. 237; horns of the *Aha*, or Afghán and Persian Gazelle (GAZELLA SUBGUTTUROSA); and skins of TADORNA VULPANSER and FULIGULA FERINA from Kandahar: with specimens of a Lizard sent as the *Reg Máhi* from the same locality.

The species is SPHENOCEPHALUS TRIDACTYLUS, nobis, J. A. S. XXII, 654; but finer than those previously described, which latter were bleached in spirit. Those now sent are of a light brown colour above, paler below; with a darker reticulation of the upper parts, indicating the scutation. Head pale, with three dark lines, more or less broken into spots, one of them mesial, and the lateral passing through the minute eyes. Tail a third longer in what appear to be the males, than in what appear to be the females. Length from snout to vent of a presumed male, $3\frac{1}{2}$ in., the tail $2\frac{1}{4}$ in.; of a presumed female, $3\frac{1}{2}$ and $1\frac{3}{8}$ in.

Major Tytler has a pair of true SCINCUS OFFICINALIS, Laurenti, also from Kandahar, and bearing the same Persian name, which he spells *Raig Mahie* (meaning 'Sand-fish'); and both this and the preceding species, it appears, are sold in a dry state for medicine throughout India, as the true Scinque was formerly and is even now sold over a great part of Europe! The latter has not previously been recorded from so eastern a locality.

2. From Capt. Eales, commanding the 'Fire Queen' S. V. A specimen of the rare HAMADRYAS VITTATUS (*Naiia vittata*, Elliot, II. *hannah et ophiophagus*, Cantor); from Port Blair!

3. From Babu Rájendra Málíka. A dead Orang-utan.

4. Major S. R. Tickell, Maulmein. A collection of specimens obtained in the mountainous interior of the Tenasserim provinces.

Of mammalia, only a fine skin of RHIZOMYS SUMATRENSIS, (Raffles), v. *cinereus*, McClelland.

Of birds, a highly interesting series, supplying fine examples of BULACA SELOPUTO, (Horsfield, *Strix pagodarum*, Tem.), BUCEROS TICKELLI, nobis (J. A. S. XXIV, 266, 285), and PODICA PERSONATA, Gray; with a few species hitherto undescribed, and numerous specimens of others excellently prepared.

HUHUA ORIENTALIS; *Strix orientalis*, Horsfield: *Str. samatrana*, Raffles, (*jav.*); *Str. strepitans*, Temminck; *Hahua nipalensis*, Hodgson; *H. pectoralis*, Jerdon. A nestling specimen, corresponding to the descrip-

tion of *Str. sumatrana*, Raffles (*Lin. Tr.* XIII, 279). Both old and young are figured by Temminck, *p. c.* 174, 229.

BUCEROS TICKELLI, nobis, *J. A. S.* XXIV, 266, 285; being a second species of the genus *ANORRHINUS* of Reichenbach. The specimen originally described was an incompletely mature female, with the casque not fully developed. Two mature males resemble it in plumage, except that the rufescent hue of the lower parts is brighter, and that the wing-feathers are more conspicuously pale-edged, as in the nearly affined *B. GALERITUS*, Tem. The casque resembles in shape that of *B. GALERITUS*, but with the bill is wholly yellowish-white, weakly infuscated on the fore-part of the casque, and shewing a coral-red spot at the base of the lower mandible. The frontal feathers behind the nostrils radiate forwards, so as to conceal the hind-part of the casque, and in one specimen these are much tinged with pale fulvous. Tips of the coverts of the primaries white, to a greater or less extent, forming a small spot on the wing. Length of wing exactly 12 in.; of middle tail-feathers the same; bill from gape $4\frac{3}{4}$ in., and its total height, including casque, 2 or $2\frac{1}{2}$ in. "Irides grey within brown."

PICUS ATRATUS, nobis, *J. A. S.* XVIII, 803. Originally described from a tail-less and otherwise much injured female. A fine perfect specimen of a female is now sent, but the male is still a desideratum. The six medial tail-feathers are wholly black, and the penultimate has only one subterminal white bar on its inner web, and three on its outer web, besides the white extreme tip. Chin whitish; the throat with medial black streaks: on the rest of the lower parts these are narrower and more confused, and the flanks are as indistinctly barred; while the pale portion of the feathers is deeply tinged with golden yellow. Total length 8 in., of which tail 3 in., and closed wing $4\frac{3}{4}$ in.: beak to forehead $1\frac{1}{2}$ in. "Irides carmine."*

* Another new Woodpecker of the same group we have lately received from Port Blair, being as yet only the second new species of bird from the Andaman islands,—the other being the fine *Sháma* (*KITTACINCLA ALBIVENTRIS*, nobis, *J. A. S.* XXVII, 269); of which more specimens have since been received,—unless the Oriole (*J. A. S.* XXVIII, 272,) should prove to differ from *O. CORONATUS*, which I still think probable.

PICUS ANDAMANENSIS, nobis, *n. s.* Nearly affined to *P. ANALIS*, Tem., of Java, which it resembles in size and proportions,—as also *P. PECTORALIS*, nobis (*J. A. S.* XV, 15),—all three differing from the common *P. MACEI* of Bengal by their smaller size and white-spotted middle tail-feathers: in *P. MACEI*, as also in the affined Himalayan *P. BRUNNIFRONS*, the four medial *rectrices*, and in *P. ATRATUS* the six medial *rectrices*, are spotless black; the last named being also the largest species of this particular group: in *P. ANDAMANENSIS* the middle tail-feathers have three distinct pairs of white spots, while in *P. PECTORALIS* they have four pairs of white spots of larger size: but the Andamanese bird is specially characterized by the large round black spots upon its breast, each margined with whitish; the ear-coverts, also, are longitudinally streaked with black, and the flanks are more conspicuously rayed than in the others. In other

UROCISSA MAGNIROSTRIS, nobis, *J. A. S.* XV, 27. As usual in Burmese specimens, the bill is larger and the blue of the plumage is distinctly more intense than in the Himalayan *U. OCCIPITALIS*.* “Male. Irides orange.”

PARUS SUBVIRIDIS, Tickell, nobis, *J. A. S.* XXIV, 267. Much injured specimen, but in finer and fresher plumage than the one previously obtained, and satisfactorily confirming the species. “Female. Irides sepia.”

SIBIA MELANOLEUCA, Tickell, *n. s.* A fourth species of this genus, † akin to *S. CAPISTRATA* and *S. GRACILIS*; of a sooty-black hue above, the crown intense black, and a faint green shine on the wings: lower parts white, slightly sullied, but a small black space on the chin. Wings white at base internally, save on the first two primaries. Outermost and penultimate tail-feathers broadly tipped with white, the rest successively less so, and merely the extreme tips of the middle pair. Length about $9\frac{1}{2}$ in., of which the tail is half; closed wing $3\frac{1}{2}$ in.; bill to gape $\frac{7}{8}$ in.; and tarse 1 in. “Male. Irides sanguine.”

IXULUS STRIATUS, nobis, *n. s.* A fourth species of this genus, affined to *I. CASTANICEPS*, Moore, *P. Z. S.* 1854, p. 141, ‡ and like that species with

respects this bird resembles *P. MACEI* (and I believe *P. ANALIS*). The lower tail-coverts are bright crimson; and the crimson tips of the coronal feathers of the male are less developed than in *P. MACEI*, especially towards the forehead. Length of beak to gape 1 in.; of closed wing $3\frac{3}{8}$ in.; and of middle tail-feathers $2\frac{1}{2}$ in.

Our list of Andamánese birds, examined and positively determined, is still scanty. To the few noticed in *J. A. S.* XXVII, *et seq.*, and in XXVIII, 271 *et seq.*, may be added *PALEORNIS ALEXANDRI*, *P. ERYTHROGENYS*, nobis (*nicobaricus*, Gould, heretofore only known from the neighbouring Nicobar group), *TODIRHAMPHUS COLLARIS*, *GRACULA INTERMEDIA*, and *ANOUS STOLIDA*; but in other classes (that of fishes especially) we have received largely. Here I shall only remark, concerning the Parrakeet, that three distinct species of *PALEORNIS* have received the name *erythrogenys*; which was first bestowed by M. Lesson on the common *P. LONGICAUDA*, (Boddiaert; *Ps. malaccensis*, Gm., *nec* Latham, of which *P. viridimystax*, nobis, proves to be the young),—secondly, by myself on the species inhabiting the Andamán and Nicobar islands (since designated *nicobaricus* by Gould),—and thirdly, by Mr. L. Fraser to what appears to be the original *BARBATUS*, Gmelin (identical with *Luciani*, Verreaux, and *Fraseri*, Moore): the *habitat* of the last is still uncertain.

* At a Meeting of the Zoological Society, held on May 10th. of this year, “Mr. Gould exhibited specimens of the four known species of the genus *UROCISSA*,—*U. SINENSIS*, from China,—*U. OCCIPITALIS* of the Eastern Himalaya,—*U. MAGNIROSTRIS*,—and *U. FLAVIROSTRIS*; and pointed out their distinctive characters.” *Athenæum*, May 14th, p. 651. The last three were named by myself in the Society’s Journal. *U. OCCIPITALIS*, however, is not from the eastern, but from the western Himalaya; *U. FLAVIROSTRIS* is the only species which I have seen from the eastern Himalaya, and this also inhabits Kashmir, according to Lord Arthur Hay.

† Vide *J. A. S.* XXIV, 271.

‡ Here I may remark that I doubt exceedingly the *habitat* assigned to this species—“Afghánistán.” The late Mr. Griffith’s specimens, in various classes, from Afghánistán and the Khásya hills, got mixed up together, and in this way several Khásya species have come to be described as inhabiting the widely dif-

graduated outer tail-feathers. Bill moderately stout, as in *I. OCCIPITALIS*, nobis. Length about 5 in., of closed wing $2\frac{3}{8}$ in., and of tail the same: bill to gape $\frac{1}{2}$ in.; and tarse $\frac{5}{8}$ in. Colour greyish-brown above, each feather with a white mesial streak; below albescent throughout: outermost tail-feather $\frac{3}{4}$ in. shorter than the middle pair, and largely tipped with white, as is also the next, and the ante-penultimate and next within gradually less so, the outer four feathers successively graduating.

ABROENIS SUPERCILIARIS, Tickell, *n. s.* Another of this numerous group, yellowish-green above, pure yellow below: the cap light ash, with a well defined white supercilium, and also a white throat: rictal vibrissæ unusually developed: tail uniform yellowish-brown without markings; its upper coverts yellow; bill dusky; and the legs pale and probably yellowish. Length 4 in., of wing 2 in., and tail $1\frac{1}{2}$ in.; bill to gape $\frac{1}{16}$ in.; and tarse $\frac{3}{4}$ in. The short first primary is half as long as the second, and two-fifths as long as the fourth and fifth which are longest. "Irides sepia."

PELLORNIUM TICKELLI, nobis, *n. s.** Smaller than *P. RUFICEPS*, but absolutely typical in structure. Colour uniform brown above, much paler and tinged with rufous below, the middle of the belly pure white; frontal and loreal feathers pale-centred, more or less. Upper mandible pale dusky, the lower whitish or probably pale carneous, as are also the legs. "Irides sepia." Length $5\frac{1}{2}$ in., of wing $2\frac{1}{2}$ in., and tail 2 in.; bill to gape $\frac{3}{4}$ in., and tarse 1 in.

To this genus I now refer *P. FUSCOCAPILLUS* (*Drymocotaphus* apud nos, *J. A. S.* XVIII, 815), from Ceylon; and the *DUMETIÆ* are barely separable. An example of *P. RUFICEPS* is with Major Tickell's specimens.

TURDINUS GUTTATUS, Tickell, *n. s.* This deviates a little from the three species previously described,† in not having the feathers dark-margined (as in most *OREOCINCLÆ*), while the speckling of the sides of the neck is peculiar. Colour a rich deep ruddy-brown, more rufescent on the tail-coverts and tail; the throat pure white, bordered on either side with a black monstache, above which is a white spot: rest of the lower-parts deep rufo-ferruginous, tinged with fuscous on the flanks and lower tail-coverts, and shewing a slight medial whitish line: loreal feathers black with greyish-white lateral edges; the frontal feathers stiff as usual: ear-coverts brown: behind the eye an ill-defined streak, and behind the ear-coverts a great

ferent climatal region of Afghánistán. *Vide J. A. S.* XXII, 413. The *URVA CANCRIVORA*, Hodgson, among mammalia, is another instance, assigned to Afghánistán on the supposed authority of Griffith.

* As the specific name suggested by Major Tickell is a one of the synonymes of *P. RUFICEPS*, I therefore name the specimens as above.

† *Vide J. A. S.* XXIV. 269 *et seq.*

patch of feathers, each having an oval white mark set off with black, and other feathers thus marked across the nape. Bill plumbeous; and legs plumbeous-brown. "Female. Irides sepia." Length 6 in., of wing $2\frac{3}{4}$ in., and tail $2\frac{1}{2}$ in.; the plumage extremely copious over the rump; bill to gape 1 in.; and tarse 1 in.

TROPICOPERDIX (nobis) CHLOROPUS, Tickell, *n. s.* A third species of this group, which is founded on PERDIX PERSONATA, Horsfield, of Java, and P. CHARLTONI, Eyton, of Penang and Province Wellesley, which latter the present bird exactly resembles in size and structure. The form comes near to ARBORICOLA, but the straight claws are much less developed, and there is a characteristic difference of plumage. The present species differs from TR. CHARLTONI, in having the interscapularies unmottled olive-brown, crossed with numerous black rays on each feather; the supercilium is more delicately pencilled, and the ear-coverts are not ferruginous, but white with black spots like the throat, and below the throat there is a broad ferruginous band also with round black spots; breast similar to the back, olive-brown with numerous blackish cross-rays, below which the under-parts are ferruginous, paling at the vent and interior of thighs: the flanks have no well defined broad black bands, as in T. CHARLTONI, but are prettily mottled with dusky in a manner difficult to describe; and the same remark applies to the wing-coverts: tail freckled and marked with zig-zag dusky bands. Bill wax-yellow, crimson towards gape in both mandibles; and the legs yellowish-green. Length of wing 6 in., of tail 3 in., of bill to gape 1 in., and of tarse $1\frac{3}{4}$ in. "Irides brown."

PODICA PERSONATA, G. R. Gray. Two specimens, male and female: the former having a black chin and throat; ending in a point half-way down the neck, and narrowly margined throughout with white which commences behind the eyes; the forehead also black, continued into a supercilium: the latter having the chin and throat white, bordered throughout with black indicating the periphery of the black patch of the male, and beyond this the same external white border; supercilia black as in the male, but not the forehead. In both, and in a third specimen formerly sent by the late Major Berdmore, there is a triangular naked space at base of the upper mandible, the base of which is even with the forehead, and the adjacent feathers behind it being white. Length of male $1\frac{3}{4}$ ft., of wing 10 in., and tail 5 in.; beak to forehead 2 in., tarse $1\frac{3}{4}$ in., and middle toe and claw 3 in. "Irides of male sepia; of female pale yellow." The difference, however, has more the appearance of summer and winter plumage, than of sexual diversity.

Various Himalayan (and, more especially, S. E. Himalayan) species form part of this collection; of which may be enumerated, as shewing the geogra-

phic range, *HIERAX EUTOLMOS*, *ATHENE BRODIEI*, *VIVIA INNOMINATA*, *CISSA SINENSIS*, *LEIOTHRIX ARGENTAUROS*, *MINLA CASTANICEPS*, *ALCIPPE NIPALENSIS*, *MUNIA ACUTICAUDA*, *GAMPSORHYNCHUS RUFULUS*, *PRATINCOLA FERREA*, *RUTICILLA LEUCURA*,* *ANTHIPES GULARIS*, *ENICURUS SCHIISTACEUS*, *NILTAVA GRANDIS*, *CRINIGER FLAVEOLUS*, *ARACHNOTHERA MAGNA*, and *DUCULA INSIGNIS*; also the *PSARISOMUS DALHOUSIE*, accompanied by *CORYDON SUMATRANUS*, *EURYLAIMUS JAVANICUS*, and the beautiful *SERILOPHUS LUNATUS*, which is replaced in the S. E. Himalaya by *S. ERYTHROPYGUS*. Two of the foregoing species I have also seen in Malacca collections, viz.: *HIERAX EUTOLMOS* and *MUNIA ACUTICAUDA*. A superb male of *SERILOPHUS LUNATUS* has the silky-white crescent not confined to the side of the neck, but passing completely across in front. *ZOSTEROPS FLAVUS* (*Dicæum flavum*, Horsfield.) is also sent, being previously known to inhabit only Java and the Philippines.

The specimens of *DUCULA INSIGNIS* in the Society's museum, from Sikhim and Arakan, were considered by Dr. Jerdon to be distinct from his *D. CUPREA* of S. India, which latter perhaps is the true *BADIA* of Raffles. The Tenasserim specimen now received (a female) is pure pearl-grey on the crown and cheeks, and more distinctly ashy on the lower parts, than in a Sikhim female; which latter has the crown, cheeks, and lower parts much tinged with ruddy; whilst an Arakan specimen (also *probably* a female) is intermediate.

Two packages have since been received from Major Tickell. The first containing an Arctic bird, most remarkable for occurring within the torrid zone, "in Lat. 16° 22' North!"

CATABRACTA POMARINA, (Tem). In adult plumage. "It was picked up," remarks Major Tickell, "or rather I should say knocked down, by some village boys in a swampy meadow about five or six miles south of Monlmein. There had been very heavy weather in the Bay for some days past; but the singular thing is, that this bird should have ranged so wide from its usual haunts as to come within the influence of our tropical monsoon.

"The fact is more curious even than that of the *EMBERIZA AUREOLA*, a Siberian bird, being found in such vast flocks here every cold weather. It supplies with us, in fact, the place of the 'Baghairi' (*CALANDRELLA BRACHYDACTYLA*) in Bengal.

"Another singular occurrence is the breeding of the 'Gargany' (*ANAS QUERQUERDULA*) in this part of the country. I have a young one now

* *Muscisylvia* and since *Myiomela leucura*, Hodgson. I agree with Major Tickell that this species can hardly be separated from *RUTICILLA*.

alive which was brought to me, when just fledged, from a pond or small lake about twelve miles off.”*

To the foregoing notices may be added the fact that I procured a specimen of *PHALAROPUS FULICARIUS* in the Calcutta provision bazar, on May 11th, 1846. Though so late in the season, it had not begun to assume the summer colouring; and it was miserably lean, though the plumage was in good order for stuffing. The late Prince of Canino records the occurrence of this species so far south in America as the lake of Nicaragua (the *Coccolbolca* of the aborigines), in lat. 12° north!

Still more remarkable, Dr. L. C. Stewart obtained a specimen of *LOPIPES HYPERBOREUS*, an arctic species very rare even in North Britain, in the vicinity of Madras!† It is now, together with the last, in excellent preservation in our museum.

The delicate *CALLIOPE CAMTSCKATKENSIS* is common in the neighbourhood of Calcutta during the cold season; but I have never seen it from any part of the Himalaya. Von Wrangell, however, tells us that this particular species (which cannot well be confounded with any other) arrives “early in April, with the Snowfleck, in the Lower Kolyma district” in Northern Siberia!‡

The ‘Pomarine Skua’ sent from Burma by Major Tickell is in adult plumage! In general, the young of migratory birds proceed further equatorially than the adults; and, as instanced by the present species, various arctic birds that have occurred in the British islands or surrounding seas

* In *Tom.* XLIII, p. 644, of the *Comptes Rendus*, the late Prince of Canino remarks—“*Mon Lestris Hardyi* n’ est admis comme espèce ni à Leyde où on le nomme *Lestris parasiticus?* ex Malasia, Boïè; ni à Berlin où le seul qu’on possède a été pris en pleine mer entre les Philippines et les îles Sandwich. M. Cabanis l’a étiqueté *Lestris crepidata.*”

The Gargany and the Pintail are the two commonest species of Ducks in Lower Bengal during the cold season, at least they are brought in by far the greatest numbers to the provision-bazars, and are, pre-eminently, the ‘wild Duck’ and ‘Teal’ of our tables. Our most common Pochard is the ‘White-eye’ (*FULIGULA NYROCA*). The Gadwall, Shoveller, Widgeon, and true Teal, are tolerably common, as also the Red-crested, the Tufted, and the Dun Pochards: the Shieldrake is not rare: but the Mallard I have never seen yet, though assured that it has been shot so near as at Ránigánj. *CASARCA BUTILA* is common, of course; and the non-European species I here pass over.

It may be remarked, however, that a Duck from Abyssinia which Dr. Rüppell sent us for *A. PÆCILORHYNCHA*, and which is described as *A. Ruppelli* in *J. A. S.* XXIV, 265, proves to be *A. FLAVIROSTRIS*, A. Smith, figured in the *Zoology of S. Africa*. The only difference is, that the neck in the figure is represented to be minutely speckled, instead of being streaked with a dark median line on each feather; and there is no discernible dusky mark through the eye in the Society’s Abyssinian specimen. The description, however, demonstrates their identity.

† Vide *J. A. S.* XXIII, 214.

‡ ‘Narrative of Expedition to the Polar Sea,’ Sabine’s translation, p. 52.

have visited them only in the garb of immaturity. The Pomarine Skua is there an exceedingly rare winter visitant in its adult dress; and a recent instance of such a specimen occurring, at the Land's-End, is made the subject of a paper appended to 'the Fortieth Annual Report of the Royal Institution of Cornwall' (1858), which I have just received.

Major Tickell's subsequent package contains the skin of a Squirrel, which is only our second specimen of—

SCIURUS BERDMOREI, nobis, *J. A. S.* XVIII, 603. This species, according to Major Tickell, "infests paddy fields. It is in fact more terrestrial than arborial, or at least fully as much so. You will remark its long muzzle and flat head—strongly resembling that of the *TUPAIA*." Nevertheless, though approximating—it cannot range in the peculiar group designated *RHINOSCIURUS* by Dr. J. E. Gray; undescribed by him, but a species from Singapore noticed by the name of *RH. TUPAIOIDES*, Gray, in p. 195 of his 'Catalogue of the Specimens of Mammalia in the British Museum.' It is also doubtfully referred by him to *SC. LATICAUDATUS*, Müller, figured and described by Dr. S. Müller and Prof. Temminck. We also possess what must doubtless be Dr. Gray's species, from Singapore; and it can hardly be other than that noticed by Dr. Cantor in *J. A. S.* XV, 251. Dr. Cantor, however, describes the fur to be "soft and delicate." In our specimen (and I selected it from others like it) the fur is somewhat coarse, and the piles do not lie straight and smooth, but have a harsh and rough appearance. He also describes his Pinang species to "differ from the diagnosis of *SC. LATICAUDATUS*, from the west coast of Borneo, in having neither the first nor the fifth molar of the upper jaw very large. Both are of nearly equal size, and much smaller than the rest." In our Singapore specimen, the first upper molar is unusually large for a *SCIURUS*, but not more than half so large as the last of the series, which latter is of equal size (or very nearly so) with the fourth. The skull exactly agrees with that of *SC. LATICAUDATUS*, as figured by Dr. S. Müller, as does also the size of the first upper molar; and there is the same remarkable elongation and reduced vertical depth of the maxillaries, with their inferior outline exhibiting a straight line from the rodentia tusks to the molars; the upper rodent teeth are also singularly small, and the lower elongated and almost straight,—their enamel being of a pale orpiment-yellow colour: the ear-conch is remarkably short, bearing a great resemblance to that of *TUPAIA*; and, as viewed from a little distance, it is curious that there is even the same pale line on the side of the neck as in the *TUPAIÆ*, but broader and less defined or more diffuse. In this specimen the tips of the caudal hairs are white, imparting a grizzled hoary appearance; and the fur of the upper parts, head and limbs, is much more mixed with black than in Dr. S.

Müller's coloured figure of *SC. LATICAUDATUS*, and of the lower parts dull white without any rufescent tinge. The two are probably affined species rather than identical.

In *SC. BERDMOREI* the skull is that of an ordinary *SCIURUS* of the 'Palmist' group, to which the species strictly appertains, as indeed is further evidenced by the markings of its coat; it being the largest of the Palmists with which I am acquainted; and moreover the habits (as described by Major Tickell) are just those of other Palmists. Neither in the form of its ear-conch, nor in the attenuation of the maxillaries and reduced size of its gnawing teeth, does it approximate the *RHINOSCIURUS* type; and the enamel of the tusks is of the usual dark brownish-orange colour. The fur, however, is very like that of a *TUPAIA*, but for the usual longitudinal stripes that distinguish the Palmist Squirrels.* The specimen formerly presented by the late Major Berdmore from Mergui was a fine male, of a brighter colour than Major Tickell's female now sent, having in fact a newer or less worn *pelage*; but the species is obviously one and the same. It has three dorsal black stripes from the shoulder to the croup, the lateral bordered externally by a yellowish-white stripe, and there is another yellowish-white stripe on each side below, separated and set off above and below with blackish; lower parts white with a strong rufous tinge, and in the Mergui specimen more especially this rufous is rather deep on the internal border of the thighs and at the base of tail underneath; the head is very rufescent in both specimens; and the tail in that from Mergui is deep rufous underneath along its middle, with first a narrow and then a broad longitudinal band, the latter set off with yellowish-white tips, which grizzle also the upper surface of the tail. In the other specimen, which appears to have been younger, in addition to having more worn and abraded fur, the colouring of the tail is the same, but much duller. Length of head and body about 8 in., with tail of the usual proportions: skull just 2 in. long.

HALCYON LEUCOCEPHALUS, (L.); *II. guriat*, Pearson. Variety, with albescent cap, sufficiently so quite to explain the specific name, if founded upon a specimen thus coloured.

Since this Report was drawn up, Major Tickell has favored the Society with more elaborate descriptions of his specimens, which are awaiting publication. We have also received from him a fine specimen of a fish from Port Blair, the *SYNANCEIA BRACHIO*, C. V., of the *Histoire des Poissons*.

E. BLYTH.

* 'Palm Squirrel' is a misnomer; these animals shewing no particular partiality for palms, that ever I could perceive.

Abstract of the Results of the Hourly Meteorological Observations taken at the Surveyor General's Office, Calcutta, in the month of April, 1859.

Latitude 22° 33' 1" North. Longitude 88° 20' 34" East.

Height of the Cistern of the Standard Barometer above the Sea level, 18.11 Feet.

Daily Means, &c. of the Observations and of the Hygrometrical elements dependent thereon.

Date.	Mean Height of the Barometer at 32° Falt.,	Range of the Barometer during the day.			Mean Dry Bulb Thermometer.	Range of the Temperature during the day.		
		Max.	Min.	Diff.		Max.	Min.	Diff.
	Inches.	Inches.	Inches.	Inches.	o	o	o	o
1	29.987	30.060	29.902	0.158	84.5	92.8	76.6	16.2
2	.956	.027	.867	.160	84.9	95.4	77.0	18.4
3	Sunday.							
4	.846	29.921	.787	.134	85.1	96.4	78.4	18.0
5	.837	.894	.762	.132	85.1	94.2	77.9	16.3
6	.814	.890	.737	.153	84.2	92.8	76.6	16.2
7	.802	.874	.722	.152	85.1	92.2	78.8	13.4
8	.799	.859	.712	.147	84.8	92.6	79.2	13.4
9	.814	.879	.741	.138	81.7	90.6	74.2	16.4
10	Sunday.							
11	.868	.965	.799	.166	78.7	87.0	68.9	18.1
12	.833	.922	.739	.183	79.2	89.6	74.0	15.6
13	.816	.886	.752	.134	80.9	90.4	73.0	17.4
14	.822	.909	.745	.164	81.8	92.6	74.6	18.0
15	.848	.926	.778	.148	81.2	90.2	73.6	16.6
16	.827	.902	.758	.144	84.8	94.8	76.2	18.6
17	Sunday.							
18	.746	.840	.683	.157	83.4	91.8	76.2	15.6
19	.762	.836	.697	.139	84.9	91.0	78.8	15.2
20	.759	.816	.686	.130	86.3	95.4	79.8	15.6
21	.740	.812	.658	.154	87.2	96.4	79.8	16.6
22	.724	.794	.647	.147	87.2	98.0	79.5	18.5
23	.731	.797	.666	.131	86.4	96.0	79.2	16.8
24	Sunday.							
25	.715	.790	.632	.158	86.6	93.8	80.8	13.0
26	.754	.806	.672	.134	85.5	92.8	76.4	16.4
27	.795	.870	.725	.145	85.7	94.4	75.6	18.8
28	.830	.892	.748	.144	86.3	95.8	80.1	15.7
29	.809	.890	.716	.174	87.1	95.6	79.6	16.0
30	.795	.878	.701	.177	88.2	97.2	79.9	17.3

The Mean height of the Barometer, as likewise the Mean Dry and Wet Bulb Thermometers are derived from the twenty-four hourly observations made during the day.

*Abstract of the Results of the Hourly Meteorological Observations
taken at the Surveyor General's Office, Calcutta,
in the month of April, 1859.*

Daily Means, &c. of the Observations and of the Hygrometrical elements
dependent thereon.—(Continued.)

Date.	Mean Wet Bulb Ther- moneter.	Dry Bulb above Wet.	Computed Dew Point.	Dry Bulb above Dew Point.	Mean Elastic force of Vapour.	Mean Weight of Vapour in a cubic foot of air.	Additional Weight of Va- pour required for com- plete saturation.	Mean degree of Humi- dity, complete satura- tion being unity.
	o	o	o	o	Inches.	T. gr.	T. gr.	
1	73.2	11.3	67.5	17.0	.670	7.17	5.18	0.58
2	74.1	10.8	68.7	16.2	.697	.44	.05	.60
3	<i>Sunday.</i>							
4	74.9	10.2	69.8	15.3	.722	.71	4.86	.61
5	76.0	9.1	71.4	13.7	.761	8.12	.45	.65
6	77.5	6.7	74.1	10.1	.830	.89	3.35	.73
7	79.7	5.4	77.0	8.1	.910	9.73	2.84	.77
8	78.8	6.0	75.8	9.0	.876	.37	3.09	.75
9	75.4	6.3	72.2	9.5	.871	8.38	2.99	.74
10	<i>Sunday.</i>							
11	72.8	5.9	69.8	8.9	.722	7.81	.60	.75
12	72.6	6.6	69.3	9.9	.711	.67	.89	.73
13	73.5	7.4	69.8	11.1	.722	.78	3.32	.70
14	76.2	5.6	73.4	8.4	.811	8.73	2.67	.77
15	75.1	6.1	72.0	9.2	.776	.35	.86	.75
16	78.1	6.7	74.7	10.1	.846	9.05	3.41	.73
17	<i>Sunday.</i>							
18	74.7	8.7	70.3	13.1	.734	7.87	4.09	.66
19	78.2	6.7	74.8	10.1	.849	9.07	3.42	.73
20	78.6	7.7	74.7	11.6	.846	.01	4.01	.69
21	77.2	10.0	72.2	15.0	.781	8.29	5.08	.62
22	77.7	9.5	72.9	14.3	.797	.49	4.88	.64
23	78.4	8.0	74.4	12.0	.838	.93	.13	.68
24	<i>Sunday.</i>							
25	79.8	6.8	76.4	10.2	.893	9.53	3.61	.73
26	79.0	6.5	75.7	9.8	.873	.32	.40	.73
27	79.2	6.5	75.9	9.8	.879	.38	.42	.73
28	79.5	6.8	76.1	10.2	.885	.44	.58	.73
29	78.3	8.8	73.9	13.2	.824	8.78	4.55	.66
30	79.0	9.2	74.4	13.8	.838	.89	.87	.65

All the Hygrometrical elements are computed by the Greenwich Constants.

Abstract of the Results of the Hourly Meteorological Observations taken at the Surveyor General's Office, Calcutta, in the month of April, 1859.

Hourly Means, &c. of the Observations and of the Hygrometrical elements dependent thereon.

Hour.	Mean Height of the Barometer at 32° Fahr.	Range of the Barometer for each hour during the month.			Mean Dry Bulb Thermometer.	Range of the Temperature for each hour during the month.		
		Max.	Min.	Diff.		Max.	Min.	Diff.
	Inches.	Inches.	Inches.	Inches.	o	o	o	o
Mid-night.	29.821	30.060	29.714	0.346	79.9	81.8	73.8	11.0
1	.806	.048	.704	.344	79.7	83.8	75.0	8.8
2	.794	.027	.696	.331	79.2	83.8	74.8	9.0
3	.786	.009	.689	.320	78.9	82.4	74.2	8.2
4	.789	29.992	.700	.292	78.4	81.8	71.7	10.1
5	.805	.982	.725	.257	78.0	82.1	69.8	12.3
6	.825	30.002	.744	.258	77.8	82.4	68.9	13.5
7	.846	.020	.763	.257	78.5	83.0	69.8	13.2
8	.860	.027	.774	.253	81.4	86.0	72.5	13.5
9	.877	.054	.758	.296	84.6	88.2	77.8	10.4
10	.875	.049	.759	.290	87.3	92.2	80.8	11.4
11	.865	.037	.757	.280	89.4	93.2	81.6	11.6
Noon.	.844	.018	.732	.286	91.5	95.6	85.2	10.4
1	.816	29.981	.724	.257	92.3	96.0	83.8	12.2
2	.787	.943	.701	.242	93.0	98.0	82.8	15.2
3	.759	.921	.678	.243	93.0	97.8	85.4	12.4
4	.737	.909	.647	.262	92.4	97.2	87.0	10.2
5	.737	.907	.632	.275	90.5	95.4	81.0	14.4
6	.747	.902	.641	.261	87.9	93.9	77.0	16.9
7	.766	.936	.663	.273	85.1	90.8	75.8	15.0
8	.791	.962	.682	.280	83.7	89.2	74.6	14.6
9	.823	.987	.698	.289	82.4	87.2	74.8	12.4
10	.830	30.000	.719	.281	81.4	86.0	74.8	11.2
11	.826	29.979	.726	.253	80.8	85.2	75.0	10.2

The Mean Height of the Barometer, as likewise the Mean Dry and Wet Bulb Thermometers are derived from the observations made at the several hours during the month.

*Abstract of the Results of the Hourly Meteorological Observations
taken at the Surveyor General's Office, Calcutta,
in the month of April, 1859.*

Hourly Means, &c. of the Observations and of the Hygrometrical elements
dependent thereon.—(Continued.)

Hour.	Mean Wet Bulb Thermometer.	Dry Bulb above Wet.	Computed Dew point.	Dry Bulb above Dew point.	Mean elastic force of Vapour.	Mean Weight of Va- pour in a Cubic foot of Air.	Additional weight of vapour required for complete saturation.	Mean degree of hu- midity, complete satu- ration being unity.
	o	o	o	o	Inches.	Troy grs.	Troy grs.	
Mid- night.	75.6	4.3	73.4	6.5	0.811	8.75	2.03	0.81
1	75.5	4.2	73.4	6.3	.811	.76	1.96	.82
2	74.9	4.3	72.7	6.5	.792	.56	2.00	.81
3	74.9	4.0	72.9	6.0	.797	.63	1.84	.82
4	74.6	3.8	72.7	5.7	.792	.58	.73	.83
5	74.4	3.6	72.6	5.4	.790	.57	.62	.84
6	74.4	3.4	72.7	5.1	.792	.59	.54	.85
7	74.9	3.6	73.1	5.4	.803	.70	.65	.84
8	76.5	4.9	74.0	7.4	.827	.91	2.36	.79
9	77.4	7.2	73.8	10.8	.822	.78	3.61	.71
10	78.1	9.2	73.5	13.8	.814	.65	4.76	.65
11	78.7	10.7	73.3	16.1	.809	.56	5.69	.60
Noon.	79.2	12.3	73.0	18.5	.801	.43	6.72	.56
1	79.6	12.7	73.2	19.1	.806	.48	7.02	.55
2	79.5	13.5	72.7	20.3	.792	.33	.48	.53
3	78.9	14.1	71.8	21.2	.771	.10	.71	.51
4	78.8	13.6	72.0	20.4	.776	.16	.38	.53
5	78.1	12.4	71.9	18.6	.773	.16	6.56	.55
6	77.8	10.1	72.7	15.2	.792	.42	5.22	.62
7	77.1	8.0	73.1	12.0	.803	.58	3.99	.68
8	76.5	7.2	72.9	10.8	.797	.54	.53	.71
9	76.3	6.1	73.2	9.2	.806	.66	2.95	.75
10	76.1	5.3	73.4	8.0	.811	.73	.54	.78
11	76.1	4.7	73.7	7.1	.819	.83	.24	.80

All the Hygrometrical elements are computed by the Greenwich Constants.

Abstract of the Results of the Hourly Meteorological Observations taken at the Surveyor General's Office, Calcutta, in the month of April, 1859.

Solar Radiation, Weather, &c.

Date.	Max. Solar radiation.	Rain Gauge 5 feet above Ground.	Prevailing direction of the Wind.	General Aspect of the Sky.
	o	Inches.		
1	126.0	..	S. & E. & N.	Cloudy till 7 P. M. cloudless afterwards.
2	147.0	..	S. & S. W.	Cloudless till 11 A. M. Scatd. \i afterwards.
3	<i>Sunday.</i>			
4	136.4	..	S. & S. W.	Scatd. \i or \o till 7 P. M.; cloudless afterwards.
5	130.4	..	S.	Scatd. clouds till 8 A. M. Scatd. \i till 5 P. M. cloudy afterwards.
6	131.0	..	S.	Scatd. clouds till 11 A. M.; cloudless afterwards.
7	127.5	..	S.	Scatd. \i and \i till 9 A. M. cloudless till 1 P. M. Scatd. \i till 7 P. M. cloudless afterwards.
8	131.0	..	S. & S. E.	Nearly cloudless till 11 A. M.; clouds of various kinds afterwards.
9	119.0	..	S. & E.	Cloudless till 9 A. M. Scatd. \i or \o afterwards.
10	<i>Sunday.</i>	0.97		
11	127.0	..	S. E. & E.	Scatd. \i.
12	126.0	..	Variable.	Scatd. clouds.
13	130.6	..	S.	Cloudless till 7 A. M. Scatd. \i till 5 P. M. cloudless afterwards.
14	131.5	0.17	S.	Scatd. clouds; also slightly raining between 7 and 8 P. M.
15	130.5	..	Variable.	Nearly cloudless.
16	142.0	..	S. & S. E.	Cloudless till Noon. Scatd. \i till 8 P. M. cloudless afterwards.
17	<i>Sunday.</i>			
18	140.5	..	W. & N.	Scatd. \i and \i till 6 P. M. cloudless afterwards.
19	143.0	..	S.	Scatd. \i and \i.
20	146.5	..	S.	Cloudless till 7 A. M. Scatd. \o till 7 P. M. cloudless afterwards.
21	136.0	..	S. W. & S.	Scatd. clouds till 7 A. M. cloudless afterwards.
22	134.0	..	S.	Cloudless.

\i Cirri, \i cirro strati, \o cumuli, \o eumulo strati, \i nimbi, \i strati, \i cirro cumuli.

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taken at the Surveyor General's Office, Calcutta,
in the month of April, 1859.*

Solar Radiation, Weather, &c.

Date.	Max. Solar radiation.	Rain Gauge 5 feet above Ground.	Prevailing direction of the Wind.	General Aspect of the Sky.
	o	Inches.		
23	138.0	..	S. & W.	Cloudless till 11 A. M. Scatd. \i till 4 P. M. cloudless afterwards.
24	<i>Sunday.</i>			
25	128.0	..	S. & S. E.	Scatd. \i till 5 A. M. cloudless afterwards.
26	124.0	0.15	S.	Cloudless till 8 A. M. Scatd. \i till 2 P. M. cloudy afterwards; also rain with thunder and lightning from 9 to 10 P. M.
27	135.0	..	S.	Scatd. clouds of all kinds.
28	139 0	..	S. & S. E. & W.	Scatd. \i till 11 A.M. cloudy afterwards; also slightly drizzling at 5 P. M.
29	144.0	..	W. & S.	Cloudy nearly the whole day.
30	144.5	..	S. & S. W.	Scatd. clouds.

*Abstract of the Results of the Hourly Meteorological Observations
taken at the Surveyor General's Office, Calcutta,
in the month of April, 1859.*

MONTHLY RESULTS.

			Inches.
Mean height of the Barometer for the month,	..	..	29.809
Max. height of the Barometer, occurred at midnight on the 1st,	..	..	30.060
Min. height of the Barometer, occurred at 5 P. M. on the 25th,	..	..	29.632
<i>Extreme Range</i> of the Barometer during the month,	..	..	0.428
Mean of the Daily Max. Pressures,	..	..	29.882
Ditto ditto Min. ditto,	..	..	29.732
<i>Mean Daily range</i> of the Barometer during the month,	..	..	0.150
—————			
			o
Mean Dry Bulb Thermometer for the month,	..	..	84.5
Max. Temperature, occurred at 2 P. M. on the 22nd,	..	..	98.0
Min. Temperature occurred at 6 A. M. on the 11th,	..	..	68.9
<i>Extreme Range</i> of the Temperature during the month,	..	..	29.1
Mean of the Daily Max. Temperature,	..	..	93.6
Ditto ditto Min. ditto,	..	..	77.1
<i>Mean Daily range</i> of the Temperature during the month, ..	..	..	16.5
—————			
			o
Mean Wet Bulb Thermometer for the month,	..	..	76.8
Mean Dry Bulb Thermometer above Mean Wet Bulb Thermometer,	..	..	7.7
Computed Mean Dew Point for the month,	..	..	72.9
Mean Dry Bulb Thermometer above computed Mean Dew Point,	..	..	11.6
			Inches.
Mean Elastic force of vapour for the month, ..	..	..	0.797
—————			
			Troy grains.
Mean weight of vapour for the month, ..	..	..	8.52
Additional weight of vapour required for complete saturation,	..	..	3.83
Mean degree of Humidity for the month, complete saturation being unity,	..	..	0.69
—————			
			Inches.
Rained 4 days.—Max. fall of rain during 24 hours,	..	..	0.97
Total amount of rain during the month,	..	..	1.29
Prevailing direction of the Wind, .	..	..	S. & S. E. & S. W.

*Abstract of the Results of the Hourly Meteorological Observations
taken at the Surveyor General's Office, Calcutta,
in the month of April, 1859.*

MONTHLY RESULTS.

Table showing the number of days on which at a given hour any particular wind blew, together with the number of days on which at the same hour, when any particular wind was blowing, it rained.

Hour.	N.	Rain on.	N. E.	Rain on.	E.	Rain on.	S. E.	Rain on.	S.	Rain on.	S. W.	Rain on.	W.	Rain on.	N. W.	Rain on.	Calm.	Rain on.	Missed.
	No. of days.																		
Midnight.					2		5		17							1		1	1
1			1		1		5		19										2
2			1		1		2		19					1	2				2
3					2		5		14		1	2		2					2
4					2		5		15		2	2		2					
5	1		2		3		3		12		3	3		1		1			
6	3		2		2		2		13		3	3		1					
7	2		2		2		2		13		1	1		3					
8	3		1		3		1		12		5	3		3					1
9	3				2		1		13		5	2		2					
10	2		1		1		1		13		6	2		2					
11	2				2		4		12		4	2		2					
Noon.	1				2		2		12		3	6							
1	2				1		1		13		5	3			1				
2					1		2		12		4	6							1
3	1		1				1		12		5	6							
4	1		1		2		1		15		2	3			1				
5					3		2		16	1	2	2			1				
6			1		2		3		13		5	1			1				
7	1		2	1	2		1		16		4	2							1
8	1		1	1			5		16		4	2							1
9	2				1		5		16		1	1		1					
10	1				1		5		17	1	1	1						1	
11	1				1		4		18		1	1							1

THE SOUTH EAST PORTION OF THE
DISTRICT OF
AMHERST
Pinnacled

Reconnoitred and partly Compiled

by
Major J. R. Tucker

1st Regt V.I. & Dep't, Genl. Amherst

EXPLANATIONS

Permanent villages are marked with a square
Temporary villages or halting places are marked with a circle
Places from which latitude and longitude were taken are marked with a triangle
Places from which altitudes were taken are marked with a cross
Small circles are marked with a cross for the names of small rivers or creeks
Large circles are marked with a cross for the names of large rivers
The names of hills and mountains are marked with a cross
The names of mountains are marked with a cross
The names of mountains are marked with a cross



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